THE ENGINEERING AND MINING JOURNAL.

VOLUME LXVI. JULY TO DECEMBER, 1898.

INDEX.

(Illustrated Articles are Designated by an Asterisk; Names of Books Noted are in Quotation Marks.)

A

Abandonment Claim 221
Abandonment of Mining Property 38
Abandonment and Relocation.... 371
Abbott, James W.....494, 584
Abbott Mine, Cal..... 135
Abe Lincoln Mine, B. C..... 169
Abe Lincoln Mine, Colo..... 796
Abendroth & Root Mfg. Co., N. Y.....14, 164, 434, 465, 525, 675
Abercrombie, E. E..... 764
Abner Doble Co., Cal..... 795
Abrasive, Fire Clay as..... 668
Acacia for Mine Timbers..... 604
Accident Indemnity Law in France 25
Accidents in Iron and Steel Works, Germany..... 34
Accidents, Mine, Causes of..... 42
"Accidents in Mines, Belgium".. 693
Accidents, Mining, in Great Britain 518
Accidents, Mining, in Michigan... 37
Accidents in Pennsylvania Coal Mines 199
Acetylene Black..... 35
Acetylene Gas Lighting..... 578
Acetylene Gas for Lighting..... 582
Acetylene Production..... 368
Acheson's Pat. Carborundum Compound 763
Acid Imports..... 54
Acid Makers' Agreement..... 264
Acid Makers' Combination..... 234
Acid Manufacturers' Combination 771
Acid Shipments to South America 681
Acids Market and Prices.....Weekly.
Acker's Pat. Alloy Production.... 553
*Acklin's Pat. Conveyor..... 13
*Acklin's Pat. Ore Car..... 13
Ackroyd & Best's Miner's Lamp. 703
Adams, A. D..... 554
Adams Iron Land, Mich..... 467
*Adams' Pat. Assaying Apparatus 493
Adde's Pat. Aluminum Sizing..... 103
Addyston Pipe and Steel Co., O., 615, 772, 802
*Adirondack Gold Sand, Milling at Hadley 275
Adirondack Sea-Sand Gold..... 363
Admiral Mg. Co., Utah..... 319
Adrath Mg. Co., Ariz..... 405
Adsit, H. B..... 614
Adventure, Con. Mg. Co., Mich. 407, 557, 677, 706
Adverse Claims and United States Land Office..... 460
Aetna Coal Mines, Tenn.....289, 528
Aetna Iron Co., Minn..... 707
Aetna Mine, Colo..... 496
Aetna State Co., Pa.....78, 138, 438
Africa, Coal Exports to..... 320
African Telegraph Line..... 309
Agassiz, Alexander..... 554
Agassiz, Prof..... 644
Agnes Mine, Cal..... 75
Agricultural Chemists, Association 644
Aguilar, Rafael, "Geological and Mining Bibliography of Mexico" 303
Ainsworth, Wm., Colo..... 614
"Air Compressor, Catalogue No. 12" 243
*Air Compressor, Dutton's Pat.... 283
*Air Compressor, Gasoline Engine 311
*Air Compressor Governor, Libby's Pat. 642
Air Compressor, Heston & Harvison's Pat..... 253
*Air Compressor, Noack & Grossman's Pat..... 103
!Air Compressor Valve Gear, Sederholm's Pat..... 133
*Air Compressor Valve, Leyner's Pat. 403
Air and Gas Mixer, Chambers' Pat. 732
*Air, New Gas, Etherion..... 549
Air, New Gases in..... 41
*Air Pump, Newcomb's Pat..... 613
Aitcheson Perforated Metal Co., Ill. 434
Aitkin, R. M., Loss in Smelting Cyanide Slimes..... 790
Ajax Gold Mg. Co., Colo..... 345
Ajax Gold Mg. Co., S. Dak..... 348
Ajax Mine, N. M..... 258
Ajax Mg. Co., Utah.....499, 775
Alabama Bridge & Boiler Works, Ala. 442
Alabama Car Service Association 112
Alabama, Clay Resources and Industry of..... 369
Alabama Coal, Demand for..... 770
Alabama Coal Exports..... 135
Alabama Coal Miners' Agreement 80
Alabama Coal Miners Strike..... 440
Alabama Coal Miners' Wages.... 50
Alabama Coal Production..... 135
Alabama Commercial Association 555
Alabama, Copper Discovery..... 705
Alabama, Cost of Pig Iron..... 691
Alabama Iron Shipments..... 51
Alabama, Mineral Production..243, 393, 694
Alabama Mg. Co., Mont..... 377
Alabama, New Steel Works..... 164
Alabama, Pig Iron Sales..... 292
Alabama Rolling Mill Co., Ala.... 262
Alabama Scientific and Industrial Society 584
Alabama State Mine Inspector.... 320
Alabama Steel & Ship Building Co., Alabama.....51, 164, 195, 224, 255, 292, 434, 472, 584, 621, 772
Alabama, Stone Industry..... 398
Alameda County Mine, Cal..... 165
Alameda Mine, Cal.....15, 196, 585, 705
Alaska Coal 255
Alaska Gold Fields, Ltd., Yukon. 380
Alaska Mails..... 165
Alaska Mexican Gold Mg. Co., Alaska ...45, 165, 345, 405, 525, 615, 705
Alaska Mines and Mining..... 183
Alaska Mine, Utah.....18, 109, 168
Alaska Mg. & Milling Co., Colo... 106
Alaska Mg. & Trading Co., Alaska 45
Alaska Passenger Regulations.... 224
Alaska Transportation, Trading and Mg. Co..... 435
Alaska Treadwell, Cost of Chlorination 272
Alaska Treadwell Gold Mg. Co., Alaska 45, 75, 195, 255, 345, 522
*Alaska Treadwell Gold Mg. Co., Alaska, Report..... 280
Alaska Yukon Transportation Co. 75
Albatross Mg. Co., Mo..... 198
Alberger, Louis R..... 674
Albion Mg. Co., Utah..... 348
Albion Slate Co., Pa..... 708
Albion Slate Quarries, Pa..... 168
Alden Colliery, Pa.....47, 318
*Alderson, Matt W., Slimes Treatment in Montana..... 757
Aldrich, E. H..... 470
Alert Mine, S. Dak..... 78
Aleta Slate Co., Pa..... 678
Alexander Cyanide Plant, S. Dak. 229
Alexander Placer, Colo..... 496
Alexander Scott Mine, Mont..... 527
Alford Oil Well, Pa..... 258
Algeria, Government Drills..... 699
Algeria, Nadorite in..... 726
Algeria Phosphate Industry..... 349
Algeria Phosphates 474
Algeria, Phosphate Shipments.... 742
Algeria, Platinum 244
Algoma Coal Co., W. Va..... 19
Alicante District, Colo..... 226
Alicante Mine, Colo..... 526
Alice A. Mine, Ontario.....319, 409
Alice Mg. Co., Colo.....45, 225
Alice Mg. Co., Mont.....78, 228, 738
Alice Mg. Co., Utah..... 438
Aliunde Con. Mg. Co., Colo....225, 466
Alkader Group, Wash..... 679
"Alkali Inspector's Report, Great Britain" 123
*Alkali Metal Production, Danckwardt's Pat..... 163
Alkali Works and Engineering.... 11
"Alkali Works in Great Britain, Annual Report on"..... 363
Alkalies Market and Prices...Weekly
Alkaline Aluminate Making, Raymaud's Pat..... 523
Allison Group, Colo..... 376
Allan, John Frederick..... 494
Allbright, W. H..... 134
Allen, A. H., "Commercial Organic Analysis"..... 453
Allen, Andrew 734
Allen County Oil Wells, Ohio..... 258
Allen's Pat. Pumping Wells..... 523
Alley's Pat. Roasting Furnace.... 133
Allis, E. P. Company, Mining Property in Minn..... 767
Allis, E. P. Co., Wis.....104, 224, 314, 374, 405, 615, 704, 795
Allison Ranch Con. Mg. Co., Cal.. 225
Allotropic Iron and Carbon..... 71
Allotropic Theory 572
Allouez Mg. Co., Mich.....47, 197, 407, 467, 497
Alloy Production, Acker's Pat..... 553
Allsup's Pat. Well Rod Lifter.... 312
Allyn, J. G.....194, 404
Alpena Mg. Co., Minn..... 317
Alpha Con. Mg. Co., Nev..... 558
Alps Consolidated Mg. Co., Colo.. 646
Alps Mine, Colo..... 496
Alta District, Mexico..... 140
Alta Mine, Colo..... 145
Alta Mg. Co., Nev..... 258
Altaville Mine, Cal..... 165
Alternating Current Motor, Bradley's Pat..... 672
Altitude, the Greatest..... 492
Altoona Iron Co., Pa..... 404
Aluminum Alloy, Fox's Pat..... 763
Aluminum Alloy, McAdam's Pat.. 433
Aluminum Boat 696
Aluminum Bronze, Cupper's Pat.. 403
Aluminum Company, Limited, Great Britain 310
*Aluminum Conductor, Large..... 161
Aluminum Conductors for Electricity 331, 453
Aluminum Exports 552
Aluminum, Gold Depositing on.... 93
Aluminum Hardening, Griffith's Pat 523
Aluminum in India..... 394
Aluminum Jacketed Steel Tube... 514
Aluminum, New Uses..... 127
Aluminum Paint 491
Aluminum Prices .....Weekly
Aluminum as a Reducing Agent.. 181
Aluminum Sizing, Adde's Pat..... 103
*Aluminum Sulphide Making, Blackmore's Pat..... 13
Aluminum Sulphide Making, Peniakoff's Pat..... 73
Amador Gold Mine, Cal..... 285
Amador Queen Mine, Cal..... 705
Amalgamation and Cyanide Process Combined 94
Amalgamation Influence of Temperature on.....183, 270
Amalgamation, Temperature in... 423
*Amalgamator, Anderson's Pat... 462
*Amalgamator, Banfield's Pat..... 672
Amalgamator, Lockwood's Pat.... 373
*Amalgamator, McKelvey's Pat.. 643
*Amalgamator, Maclay's Pat..... 733
*Amalgamator, Nelson's Pat..... 313
*Amalgamator, Park's Pat..... 733
*Amalgamator, Plant & Dellow's Pat 463
*Amalgamator, Rae's Pat.....643, 733
Amalgamator, Wells' Pat 763
Amalgam, Copper in Retorting.... 582
Amalgam Mg. & Milling Co., Colo 646
Amalgam Treatment in the Transvaal 578
*Amalgam Washer, Stormer's Pat 673
Amarillas Mine, Mexico..... 49
Amazon Mine, Idaho..... 436
Amelia Mine, Cal.....165, 315
American Association for the Advancement of Science..... 254
American Association for the Advancement of Science, Section of Geology and Geography..... 276
American Bangor Slate Co., Pa. 199, 528, 587
American Bankers' Association 203, 263, 286
American Bar Co., Cal..... 375
American Bull Pup Mg. Co., Mo.. 228
"American Cement".....215, 543
American Chemical Co., Mo..... 764
American Chemical Society....344, 464, 644, 734, 794
American Chemical Society, New England Section 554
American Chemical Society, New York Section 614
Americal Chemical Society, Northeastern Section 644
American Clay Working Machy. Co., Ohio..... 555
American Coal in Brazil..... 721
American Coal Co., Md..... 235
American Coal for France..... 726
American Coal in South America 751
American Colonial Trading Co., N. Y..... 735
American Color and Chemical Co., N. J..... 584
American Competition in British Iron Trade 451
American Development Co., Mont 168
American Development Co., Wyo 529
American Development & Mg. Co., Idaho 526, 557, 617, 677
American Diamond Rock Drill Co., N. Y..... 374
American Engineer in Corea..... 342
American and English Machines in Germany 574
American Exploration & Promoting Co., S. Dak..... 378
American Express Mine, S. Dak. 168, 229
American Flint & Lime Glass Association 285
American Fork District, Utah..... 18
American Foundrymen's Association 674
American Fuel Co., Mo..... 527
American Girl Mine, Cal..... 615
American Gold Mg. Co., Colo..406, 676
American Gold Mg. Co., Colo., Report 340
American Gold Mg. Co., Mexico... 140
American Improvement Co., Cal.. 345
American Impulse Wheel Co., N. Y 435
American Indies Company..... 314
American Institute of Mining Engineers 364, 734
American Institute of Mining Engineers, Buffalo Meeting.....484, 518, 546
American Iron in Germany..... 335
American Iron Pipe for Glasgow.. 461
"American Iron and Steel Association, Annual Report"..... 392
American Iron and Steel in Germany 721
American Iron and Steel in Great Britain 274
American Lithographic Stone Co., Ky 407, 586
American Locomotive for England 751
American Locomotives in Great Britain 486
American Machine Tool Works, Ohio 314
American Mg. Co., Mexico..... 740
American Mg. Co., S. Dak..... 798
American Mg. Co., Utah..... 528
American Octopus Co., N. Y..... 704
American Pegamoid Co., N. Y.... 675
American Iron Storage Warrant Co 772
American Pipe and Foundry Co., Ala 584
American Placer Mg. Co., Idaho.. 647
American Prospectors in Siberia.. 72
American Railroad Builders in China 430
American Railroad & Mg. Co., Mexico 559
American River, Alaska..... 435
American Safety Lamp and Mine Supply Co., Pa..... 644
American Ship Material in Denmark 483
American Slate Blackboard Co., Pa 708
American Society of Civil Engineers 74, 194
American Society of Civil Engineers' "Transactions" 274
American Society of Mechanical Engineers 674
American Soda, Glass and Chemical Co., Wyo..... 739
American Steel Barge Co., Wis... 16
American Steel Casting Co., Pa. 134, 285
American Steel Pipe in Germany.. 541
American Steel & Wire Co..... 55
American Tin Plate Co.....742, 765
American Tool Works Co., Ohio.. 164
"American Trade with India" 303, 423
American Uranium Mg. Co., Colo. 736
American Wire Co..... 801
American Wire Trade in Mexico.. 754
Ames, George E..... 764
*Ammonia Production, Mehner's Pat 193
*Ammonia Salts Recovery, Pridham's Pat 283
Amortization of Mining Companies 34
Anaconda Company, Cost of Refining Copper 481
Anaconda Copper Mg. Co., Mont. 108, 228, 317, 347, 407, 437, 527, 647, 707, 797
Anaconda Copper Mg. Co., Mont., Report 392, 400
*Anaconda Mine Car Axle..... 161

Anaconda Stock 263
"Analytical Chemistry" 393
Anchoria-Leland Mg. Co., Colo. 106, 115, 466
Anchor Mg. Co., Utah.....438, 528, 648, 769
Anchor Tin Mg. Co., Tasmania... 421
Ancient Ruins, Yucatan..... 696
Anderson, Capt. C. W..... 614
Anderson, John H., Mine, N. S.. 650
Anderson Mine, Idaho..... 557
Anderson, Sir William..... 734
*Anderson's Pat. Amalgamator.. 462
Andes Mg. Co., Nev..... 798
*Andreoli's Pat. Ozone Manufacture 132
Andrew & Co., Ohio..... 224
Andrews, D. H.....314, 404
Andrews, F. C..... 164
Andrews, George S..... 344
Anglo-Continental Gold Syndicate, Ltd., Colo..... 646
Anglo-Sicilian Sulphur Company, Report 457
Anita Mine, Cal.....75, 345
"Annales de Ponts et Chaussees, Yearly Register"..... 93
Annealing Aluminum, Wootton & Martin's Pat..... 553
Annealing Box, Wilson's Pat..... 582
Annie H. Mine, Colo..... 316
Annie Laurie Mine, Utah.....18, 139
Annie Mary Mine, Colo..... 406
Annie Mine, Oregon..... 258
Annie Mine, Utah 438
Anthony Mill, Cal..... 75
Anthony's Pat. Paint..... 793
Anthracite Association 32, 200
Anthracite Coal, Coastwise Trade 530
Anthracite Coal, Cost of..... 752
Anthracite Coal, Cutting Prices.. 290
Anthracite Coal, Division of Marketable 2
Anthracite Coal Output..... 590
Anthracite Coal in Peru..... 514
Anthracite Combination 680
Anthracite, Foreign Trade..... 350
Anthracite Mine Haulage..... 611
Anthracite Miners' Wages.....50, 440, 560, 710
Anthracite, November Production 680, 740
Anthracite Output, September.... 440
Anthracite Production 380, 470
Anthracite Question 152
Anthracite Stocks at Lake Ports. 710
Anthracite Trade 32
Antietam Mine, Colo.....75, 225
Antimony Market and Prices. Weekly
Antimony Mine, Nova Scotia..... 49
Antimony Ore 702
Antimony Ore, Turkey..... 635
Antimony Shipments, Utah..... 618
Antremlam Mine, Colo..... 136
Apex Mine, Colo.....436, 585
*Appert's Pat. Wire Glass Manufacture 193
Applegate Coal Mine, Ohio..... 318
April Fool Mine, Nev..... 198
Aragon Iron Mine, Mich.....287, 557
Arbitrators' Award in Mining Case 543
Arcadian Copper Co., Mich.....16, 25, 197, 257, 467
Arequa Townsite Co., Colo..... 75
Argall, Phillip 524
*Argall's Pat. Roasting Furnace 193, 523
Argentina Coal 492
Argentina, Exports to..... 171
Argentine Mine, Idaho..... 706
Argentum-Juniata Mg. Co., Colo. 46, 467, 766
Argonaut Mine, Cal..... 765
Argyle Slate Co., Pa.....78, 587
Ariadne Lease, Colo.....256, 677
"Arithmachinist" 243, 512
Arizona Copper Co., Ariz.....165, 466, 495
Arizona Copper Co., By-Products 24
Arizona, Mohave County..... 156
Arizona, New Mining District.... 513
Arizona, Tungsten Ore..... 601
*Arizona, Turquoise Deposits in Mohave Co..... 697
Arizona Wolfram Deposit..... 466
Arizona, Yavapai County Mines.. 547
Arkansas-Bonanza Coal Mines.... 579
Arkansas City Lease, Mg. Co., Mo 257
Arkansas Valley Sm. Works, Colo 286
Arminius Chemical Co., Va....139, 438, 801
Armor Plate Process, New..... 247
Armour Mine, Mont..... 737
Armstrong, G. E..... 404
Armstrong Mfg. Co., Conn..... 704
Armstrong Mine, Cal..... 676
*Armstrong's Pat. Ore Treatment 192
*Armstrong's Pat. Wave Power.. 343
Arnold Mg. Co., Mich.....137, 407, 497, 557
Arnott Coal Mines, Kas.....287, 346
Arsenic 593
Arsenic Market 504
Arsenic in Steel 791
Arsenic, Turkey 635
Aschermann's Pat. Metal Extraction from Oxides..... 343
Ashcroft Process 721
Ashcroft Process for Lead and Zinc Sulphide Ores..... 488
Ashcroft Process and its Promoters 482
Ashcroft Process and the Sulphide Corporation 692
Ashcroft Route to the Klondike.. 350
Ashcroft Trail, Yukon.....170, 410
Ashe, W. H., "Trees and Forests of North Carolina"..... 62
Ashman Steel Casting Co., Pa.... 765
Ash Rapids, Ontario..... 49
Asia Minor, Coal in..... 218
Aspen Con. Mg. Co., Colo..... 16
Asphalt from Crude Petroleum, Forward & Davidson's Pat..... 493
Asphalt Earth, Duty on..... 369
Asphalt, Laviano, Italy..... 334
Asphalt Making, Pieper's Pat.... 763
Asphalt Manufacturing, Dubbs' Pat 223
*Asphalt Melting Kettle, Hetherington's Pat 43
Asphalt Pavement, Method of Reusing, Robbins' Pat..... 793
Asphalt, Turkey 636
*Assay Balance, Pocket..... 371
*Assav Furnace, Ils' Pat..... 43
Assay Furnace, Lonergan & Calkins' Pat..... 253
*Assaying Apparatus, Adams' Pat 493
Assaying Copper and Nickel Ores 462
Assaying for Quicksilver..... 486
Assessment Levied by Mining Companies .....Weekly
Assignment in Kentucky..... 310
Associated Gold Mines of British Columbia 55, 183, 243
Astoria Mg. Co., S. Dak..... 708
Atkinson I. B., Forced Draft for Steam Boilers 243
"Atlantic Cable Directory and Directory Code" 363, 423
Atlantic Iron Mine, Wis..... 319
Atlantic Mg. Co., Colo..... 225
Atlantic Mg. Co., Idaho.....47, 76
Atlantic Mg. Co., Mich.....76, 167, 376, 497, 595, 617, 677
Atlantic Placer Co., Wyo.....409, 439
Atlantic Transportation Co..... 500
Atlantic White Lead Works, N. Y 134
Atlin Lake, Alaska.....315, 350
Atomic Weights 512
Attalla Furnace, Ala..... 772
Auburn Iron Co., Minn..... 586
Auburn, L. E.....524, 614
Aultman Co., Ohio.....615, 675
Aultman-Taylor Co., Ohio..... 675
Aunt Betsy Mine, N. M..... 47
Aurora-Borealis Mining, Exploration, Development and Extraction Co..... 516
Aurora Iron Mine, Mich..... 316
Austin Mine, Nev..... 47
"Australasian Goldfields"..... 2
"Australasian Institute of Mining Engineers' Transactions"....413, 483
"Australasia-Statistical Account of the Seven Colonies"..... 753
Australia, Dapto Smelting Works 341
Australia, Deep Mining..... 784
Australia, Diamonds 243
Australia, Gold Dredging..... 155
Australia, Gold Imports from..... 533
Australia Mine, W. A..... 589
Australia, New Silver Field..... 699
Australia, Slate Exports to..... 80
Australia, Slate Freight Rates to 741
Australia, Steel Rails for..... 801
Austria, Bauxite 457
Austria, Chinese Iron Ore in..... 551
Austria, Coal Production..... 483
Austria-Hungary Coal 276
"Austria-Hungary, Statistics of Export Trade" 274
Austria, Iron Production..... 547
Austria Iron and Steel Production 65
Austria, Manganese Ore 544
Austria Patents 34
Automobile Carriages in France.. 445
Avondale Lime Co., Pa..... 288
A. Y. & Minnie Mg. Co., Colo. 286, 436, 616
Aztec Mine, N. M..... 258
Azure Mg. Co., N. M..... 282
Azurite Copper & Gold Mg. Co., Ariz 195, 375

B

Baby Elephant Mg. Co., Mo..... 377
Bachelder, Ira 524
Bachelor Mg. Co., Colo..... 436
Bacon, Earl C.....314, 465
Bacon, Earl C., American Hoisting Engine for Japan..... 671
Bacon, W. S..... 134
Baden Baden Gold Mg. Co., Colo. 145
Bader Mine, Cal.....495, 795
Badger Mine, S. Dak..... 678
Badger Mg. Co., Oregon.....318, 347
Bailey, L. W., "Geology of Southwest Nova Scotia".....453, 483
*Bailey's Pat. Oil Gas Manufacture 162
*Bailey's Pat. Rolling Mill Carriage 343
Bain, H. Foster, Bonanza Arkansas Coal Mines..... 579
Bain, H. F., "Geology of Plymouth County, Iowa"..... 333
Baker, Fred 374
Balbach Smelting Company, N. J. 293
Bald Mountain District, S. Dak. 168, 438, 468, 738
Bald Mountain District, Wyo..... 19
Baldo's Pat. Electrolyzing Sea Water 522
Baldwin Fertilizer Co..... 134
Baldwin Locomotive Works, Pa. 14, 105, 134, 135, 164, 195, 224
Bale Iron Mine, Minn..... 317
Baliol Gold Mg. Co., Cal...165, 495, 525
Ballard Mine, Colo.....586, 677, 706, 796
Ballast, Blast Furnace Slag for.. 514
Balleydier, Jos 644
Balliet, Letson 554
Ball Induction Ore Separating Co., N. Y..... 404
*Ball Mill, Meitzer's Pat..... 223
*Ball & Officer's Pat. Mining Machine Valve 762
Ballryder, T..... 704
Ball's Pat. Prevention Gold Stealing 763
Baltic Mine, Cal..... 195
Baltic Mg. Co., Mich.....47, 197, 376, 497, 557, 706
Baltimore & Deadwood Mg. Co., S. Dak.....618, 708, 768
Baltimore Metal Imports and Exports .....Weekly
Baltimore Mine, Mont..... 737
Baltimore & Ohio Railroad..... 380
Baltimore Stock Quotations..Weekly
Bamberger, Jacob 734
*Banfield's Pat. Amalgamator..... 672
Bangor Central Slate Co., Pa..... 138
Bangor Excelsior Slate Quarry, Pa.....468, 618, 678, 708
Bangor Royal Quarry, Pa..... 798
Bangor Slate Manufacturers' Association 801
Bangor Slate Manufacturers' Pool, Pa 798
Bangor Slate Quarries, Pa..... 18
Bangor Slate Quarrymen's Strike 438, 561, 590
Bangor Slate Shipments, Pa....50, 138, 199, 318, 378
Bangor Southern Slate Co., Pa. 138, 587
Bangor Superior Slate Co., Pa. 587, 618
Bangor Union Slate Co., Pa..199, 229, 587, 618
Bangor Valley Slate Co., Pa..... 438
Bangor Washington Slate Co., Pa 708
Bank of England Discount Rate. 473
Bank of France Discount Rate... 565
Bank of Statements, Foreign. Weekly
Bank Statements, New York. Weekly
Banker Mining Co., Colo..556, 646, 677
"Bankruptcy Law, New"..... 243
Banner Mine, Cal..... 285
Banner Mine, Idaho..... 16
Bannock Burn Lead Mines, Ont.. 379
*Bant's Pat. Drill..... 763
Bant's Pat. Rock Drill Piston.... 373
Barasa Mine, Mich..... 766
Barbadoes, Manjak 790
Barber, A. L..... 554
Barber, C. M., Electric Motors for Shop and Mine..... 636
Barges, Protection during Shipment 191
Barium Oxide 342
Barmow, John, "Linseed Oil and Varnish Manufacture" 62
Barnato Interests 595
Barnes' Farm Mine, Mo..... 107
*Barnett's Pat. Gravel Washer... 792
Barr's Pat. Concrete Mixer..... 763
Barr, Wm. M., "Boilers and Furnaces" 633
Barstow Mill, Cal..... 45
*Barthe, P. L., David Copper Converter 487
*Bartlett & Petraeus' Pat. Metallic Fume Saving..... 673
Bratnober, H..... 224
Barton Mine, Cal..... 165
Barton Mg. Co., Md..... 145
Baryta Carbonate, Duty on..... 304
Barytes 222
*Basic Company's Flume, Idaho.. 455
Basic Dredge Co., Idaho..... 166
Basic Placer Co., Idaho..... 197
Basic Slag as a Fertilizer.....124, 457
Basin & Bay State Mg. Co., Mont. 47, 767
Basin Gold and Copper Mg. Co., Mont 618
Bassick Gold Mines Co., Colo..585, 705
Bates & Holliday, "New Bankruptcy Law" 243
Bat Guano 342
Batopilas Mg. Co., Mexico.....530, 559
Battery, Edgerton's Pat..... 703
Battery, Hess's Pat..... 733
Battery Zinc, Ogden's Pat..... 222
Battle Creek Steam Pump Co., Mich 704
Battle Lake, Wyo..... 739
Battle Mountain Con. Mg. Co., Colo 715
Battle Ship Contract 351
Bauxite in Austria 457
Bauxite Exports 391
Bavaria, Upper Coal Fields..... 548
Baxter's Pat. Crusher..... 763
Bay County Coal Mine, Mich..... 167
Bay Horse Mine, Cal.....525, 705
Bay State Mine, Cal.....495, 765
Bayliss, R. H..... 434
Bayliss, R. T.....344, 464
Beadle, H. M., Form of Mining Report 34
Beam Process, Colo..... 225
Beam Process in England..... 91
Beam Process Mill, Empire, Colo. 15
*Beams, Metal, Bettendorf's Pat.. 583
Bear Creek District, Colo..... 375
Bear Creek Mine, Colo..... 225
Bear Gulch District, S. Dak..... 348
Bear Gulch Mine, Mont..... 258
Bare Hills Mine, Colo..... 76
*Beardslee's Pat. Salt Grainer.... 523
Beard, William 104
Bears' Net Mine, Alaska..... 135
Beaudry, Fred 734
Beaumont & Chauncey Coal Co., Ohio 18
Beaumont Sampling Works, Colo. 706
*Beau's Pat. Hydraulic Hammer. 193
Beaver Creek Mg. Co., S. Dak..... 199
Beaver Lake Copper Mg. Co., Utah 408, 588
Beaver Lake Sm. & Red. Co., Utah 588
Beaver Mg. Co., Oregon..... 437
Becker's Pat. Tidewater Air Compressor 403
Beck, John 134
Beckley-Robinson Company, N. Y 494
*Beckley-Robinson Gold Washer.. 521
Beckwith, R. L..... 434
Bed Rock Dredging Co., Idaho 107, 617
Bed Rock Placer Co., Idaho..... 107
Beecher, H. C..... 164
"Beet Sugar Industry in the United States" 154
Behr's Pat. Steel Tempering..... 523
Belen Agricultural & Mg. Co., Columbia 582
"Belgium, Accident in Mines"..... 693
Belgium, Artificial Sandstone in.. 307
Belgium, Carelessness in Collieries 397
Belgium Coal Consumed at Mines 574
Belgium, Coal and Iron..... 666
Belgium, Coal Mine Accidents.... 490
Belgium, Coal Mine Labor..... 611
Belgium Coke Prices..... 574
Belgium, Deep Coal Mining....277, 492
Belgium, Glass Sand in..... 581
Belgium Iron Production.....42, 244, 454, 551
"Belgium, Statistics of Mines and Quarries" 483
Bell, Dr. Robert and the Klondike 151
Bell R., "Geology of French River, Ontario" 453
Belle-Fontaine Mine, Cal..... 496
Belle of Granite Mine, Colo..... 705
Belle Isle Iron Mine, Newfoundland 380
Belle Mine, Cal 225
Bellevue Mine, Oregon.....78, 318
Belt Mg. Co., Mich.....377, 526
Beluga River, Alaska 555
Ben Butler Mine, Utah..... 319
Ben d'Or Mines, British Columbia 483
Beneke's Pat. Blasting Cartridge Case 523
Beneke's Pat. Explosive..... 222
Ben Harrison Mine, Utah..... 48
Ben Hur Mg. Co., S. Dak.....588, 768
Ben Hur Mg. Co., Wash.....589, 679, 709, 739
Benjamin, Marcus, Minerals and Mining at Omaha Exposition.... 695
Bennett Coal Mine, Ill..... 287
Benni's Pat. Tuyeres..... 253
Bentonite 491, 638
Berlin Iron Bridge Co., Conn...14, 74, 104, 164, 194, 224, 254, 285, 374, 404, 465, 495, 555, 584, 645, 704, 735, 765, 795
Berman & Smith, Rhode Island... 314
Berry's Pat. Brick Machine..... 703
Bertha Mineral Co., Va..... 115
Bertha Mine, Utah..... 588
Bethon, T.....494
Berwind-White Coal Co., Pa...710, 740, 770
Bessemer Iron Sales, Pittsburg, 263, 682, 712, 743
Bessemer Pig, Demand for..... 292
Bessemer Pig Iron Association... 532
Bessemer Steamship Co., Minn. 137, 586, 677
Bessemer Steel, Great Britain..... 311
Bessie G. Mine, Colo..... 436
Best Friend Mine, Colo..... 76
Best, Walter 794
*Best's Pat. Miner's Lamp..... 373
Bethlehem Iron Co., Pa....44, 254, 285, 675
Betsy Dahl Mine, Mont..... 468
*Bettendorf's Pat. Metal Beams.. 583
Betterman's Pat. Electric Fuse... 523
Bettles, A. J..... 344
Bettles, Newhouse & Wier, Combined Amalgamation and Cyanide Process 94
Betz Mine, Ga.....287, 557
Bevan Granite Quarry, Md..... 76
Beveridge, J. E..... 464
B. & G. Mg. Co., Mont.....17, 138, 377, 527, 587, 737, 797
Bickford & Richards, Boston & Carolina Mg. Co..... 693
Bidwell, C. S..... 314
Bidwell's Pat. Hoisting Apparatus 372
Bieneman, C..... 674
Big Betsy Mine, Cal..... 765
Big Bonanza Mine, Cal..... 435
Big Bonanza Mine, Mont..... 347
Big Bug Mine, Ariz..... 225
Big Canyon Mine, Cal..... 105
Big Four Mg. Co., Colo.....286, 316
Big Four Mg. Co., Mexico..... 200
Big Four Mg. Co., S. Dak..... 348
Big Hill Mining and Milling Co., S. Dak..... 708
Big Hit Mg. Co., S. Dak..... 798
Big Jonny Mine, Colo..... 196
Big and Little Casino Mine, Mont 198
Big Oak Flat, Cal..... 196
Big Oak Mine, Cal..... 525
Big Seven Mine, Mont..... 678
Big Six Mg. Co., Colo.....76, 706, 736
Big Three Gold Mg. Co., B. C.... 529
Big Vein Coal Co., Ohio..... 258
*Billet Furnace, Swindell's Pat.. 763
*Billet Machine, Phillips' Pat..... 703
Billin, Charles E..... 134
Bimetallic Mine, Colo..... 706
Bimetallic Smelter, Colo.....16, 286
Bingaman Coal Co., Pa..... 770
Bingham Ore Shipments, Utah 48, 199, 319, 469
Bingham Placers, Utah 648
Bingo Mg. Co., Mo.....77, 767
Binnie's Pat. Rock Drill..... 373
Binns, C. F., "Story of the Potter" 183, 543
Birdell, S. E..... 164
Birkinbine, John, "Iron and Steel Manufacture at Marquette, Mich." 154, 363
Birmingham, Ala., Extension..... 502
Birmingham Bolt Works, Ala..141, 232

Birmingham Bridge & Boiler Works, Ala..... 411
Birmingham By-Product Mfg. Co., Ala 614
Birmingham Coal Market....Weekly
Birmingham Gas Co., Ala..... 104
Birmingham Iron Market....Weekly
Birmingham Pipe Works, Ala..... 104
Birmingham Rolling Mill Co., Ala 614, 712, 742, 772
Bishop, I. P., "Geology of Erie County, New York"..... 33
Bismarck Mine, S. Dak.....318, 378, 499, 618
Bismuth 282
Bismuth, Influence on Brass..... 519
Bismuth Ores 762
Bismuth Ores, Demand..... 451
"Bismuth Ores in New South Wales" 633
Bismuth Prices .....Weekly
Bitter Root Coal Mine, Mont..... 17
Bituminous Coal Meeting..... 680
Bituminous Coal, Shipping Rates. 710
*Bituminous Rock Deposit, Santa Barbara County, Cal..... 278
Biwabik Mg. Co., Minn....17, 167, 287, 437, 767
Black Bear Mine, Cal..... 196
Black Bear Mine, Idaho.....376, 436
Black Butte Coal Mg. Co., Wyo., 379, 739
Black Butte Quicksilver Mine, Oregon 468
Black Canyon District, Colo..... 76
Black Cloud Mine, Idaho..47, 197, 316
Black Diamond Coal Company, Tenn 289
Black Diamond Copper Mg. Co., Ariz 552
Black Diamond Slate Co., Pa..... 378
Black Dragon Mine, Utah..... 199
Black-Etard Permanganate Process 612
Black Flag Mine, Colo..... 226
Black Fox Gold Mine, Ontario.... 379
Black Hawk Mine, Cal..... 735
Black Hawk Mine, Mont.....437, 468
Black Hawk Ore Shipments, Colo. 46, 76, 196, 316, 466, 585
Black Hills Forest Reserve, S. Dak 408, 528
Black Hills Labor Troubles..... 48
Black Hills Wind Cave Co..... 348
Black Mule Mg. Co., Mo..... 77
Black Oak Mine, Cal.....165, 466
Black Plate Mill, Donner's Pat... 763
Black Queen Mine, Colo..... 196
Black Swan Mg. Co., Colo..... 496
Black Tail Mine, Wash.....709, 739
Black Warrior Copper Co., Ariz.. 224
Black Water Region, B. C..... 281
Blackbird Mining District, Idaho. 107
*Blackmore's Pat. Aluminum Sulphide Making 13
Blackmore's Pat. Cyanide Making 13
Blacktail District, Mont..... 77
Blaine, R. C., "Slide Rule"..... 783
Blakeley Group, Utah..... 348
Blakemore, C. L..... 554
Blakemore, G. H..... 164
Blakemore, G. H., Dapto Smelting Works, Australia..... 341
Blake, W. P..... 494
Blanchard, Denman 164
Blanchard, Duncan 44
Blandy, John F., Yavapai County Mines, Ariz..... 547
*Blanton's Pat. Cam. Filler..... 463
*Blast Furnace Casting Apparatus, Killeen's Pat..... 193
Blast Furnace Charger, Stevenson's Pat..... 793
Blast Furnace Charges, Form of.. 546
Blast Furnace, Clapp's Pat..... 433
*Blast Furnace Dump, Miller's Pat 792
Blast Furnace and Gas Engine 361, 368
Blast Furnace Gases for Power.. 782
*Blast Furnace Jacket, Nesmith's Pat 733
Blast Furnace, the Largest..... 121
*Blast Furnace, Nesmith's Pat.... 553
*Blast Furnace, Notch Gun, Hartman's Pat 372
*Blast Furnace Plant, Lorain..... 187
Blast Furnace Slag as Ballast.... 514
Blast Furnace Slag Treatment, Elber's Pat 133
*Blast Furnace, Top and Charger 789
Blast Furnaces, Multiple Tuyeres for 518
Blasting Cartridge Case, Beneke's Pat 523
Blasting Fume Preventing, Crowe's Pat 553
"Blasting of Rock in Mines, Quarries and Tunnels" 783
*Blasting Tool, Laws' Pat..... 13
*Blasting Tool, Mino & Day's Pat 373
Blasting, Westwood's Pat..... 523
Blauvelt, W. H., Semet-Solvay Coke Oven Plant at Ensley, Ala 578
Bleaching Powder 552
Bleaching Powder Imports..... 564
*Bleaching Powder Making, Driffield, Carey & Wright's Pat..... 372
Bleaching Powder Market and Prices .....Weekly
*Bleier's Pat. Gas Analysis Apparatus 43
Blewett District, Wash 289
Blodgett's Pat. Wood Preserving Composition 102
Blood, George D..... 464
Blood Mine, Cal..... 495
Bloss & McCleary Mine, Cal...345, 525
Blossom Mine, Idaho..... 46
Blotting Paper for Cleaning Machines 335
Blow, A. A..... 494
"Blowpipe Analysis" 513
*Blowpipe, Dock's Pat..... 793
*Blowpipe, Tillman's Pat..... 43
*Blowpipe, Woltz's Pat..... 282
Blue Bell Mine, Colo.....75, 346, 736
Blue Bird Mine, B. C..... 379
Blue Bird Mine, Mont..... 797
Blue Canon Mg. & Dev. Co., Cal.. 645
Blue Grass Phosphate Co., Tenn. 528
Blue Grouse Mine, Idaho.....47, 197
Blue Grouse Mountain, B. C..... 200
Blue Jay Mine, Cal.....315, 676
Blue Lakes Water Co., Cal.....75, 466, 676
Blue Ledge Mine, Cal..... 315
Blue, M..... 344
Blue Nose Mine, N. S.....530, 649
Blue Ribbon Mine, Cal..... 105
Blue Ribbon Mine, Colo..... 196
Blue Valley Slate Co., Pa.....108, 229
Blue Vitriol and Copper..... 602
Blunderbuss Mine, S. Dak..... 378
B. & M. Mine, Colo..... 585
Board of Trade Group, Colo..... 796
Boaz Lead Mine, Mo..... 77
Bobtail No. 5 Mine, Colo.....646, 766
Bobtail No. 9, Colo..... 166
Boca, Charles, Del..... 704
Bodger's Pat. Steel Dephosphorizing 253
Boggs, Edward M..... 794
Bog Ore, Manganese from..... 94
Bohemia District, Oregon.....258, 528
Bohn, A. V..... 104
Bohon, Emil 494
"Boiler Construction" 543
Boiler Firing, New Methods..... 220
Boilers, Coal Tar for Firing..... 724
"Boilers and Furnaces"..... 633
*Boise Basin, Idaho, Mining in.... 455
Boise Dredging Co., Idaho..... 617
*Boissier's Pat. Electro-Plating Apparatus 433
Bokhara Gold Production..... 399
Boleo Copper Co., Mexico.....25, 80
Boley Mine, S. Dak.....229, 408, 588
Bolivia Mine, Colo..... 705
Bolivian Tin 632
Bon Accord Company, Mont..317, 527
Bonanza Arkansas Coal Mine..... 579
Bonanza Mine, Cal.....135, 315, 705
Bonanza Mine, Mont..... 617
Bonanza Mine, Oregon.....18, 648
*Bond's Pat. Gas Furnace..... 643
Bond, When Amount Cannot be Collected 9
Bone Superphosphate Testing..... 333
Bonner Mine, Colo..... 76
Bonne Terre Mg. Co., Mo..... 347
Bon Ton Mine, Colo..... 496
Bonzano, M. F..... 434
Booker Ranch Mine, Cal..... 705
"Book Index, Monthly Cumulative" 783
Boomer Branch Coal Mine, W. Va 319
Boomer Coal Co., W. Va.....200, 349, 619
Booth Mine, Colo..... 136
Borax Deposits in California..... 612
Borax, Duty on..... 212
Borax, Peru 42
Borchers, Dr. W., "Electro-Chemical Year Book" 183
Bordeaux, A., "Mines of South Africa" 633, 753
Bordeaux Shaft, Mont..... 228
Bosh Plate, Kerr's Pat..... 763
Bosnia Iron Ore for Austria..... 672
Bosnia, Prospecting in..... 334
Boss, R. E..... 464
Boss Tweed Mine, Utah..... 438
Boston & Alaska Co., Alaska..... 224
Boston & Arizona Copper Co..... 595
Boston Associates, Utah 499
Boston & Cariboo Mines, Ltd., B. C 769
Boston & Carolina Copper Mg. Co., N. C.....498, 642
Boston & Carolina Mg. Co., Statement 693
Boston Con. Mg. Co., Utah..... 528
Boston Copper Speculation..... 452
Boston Copper Stocks.....565, 782
Boston & Mercur Mg. Co., Utah.. 319
Boston & Montana and Butte & Boston 511
Boston & Montana Case..... 664
Boston & Montana Mg. Co., Mont. 17, 78, 138, 168, 258, 318, 377, 437, 475, 527, 648, 678, 737, 738, 767, 797
Boston & Montana Stock Transfers 595
Boston Newmarket Gold Mg. Co., Colo 585
Boston & Silverton Mg. Co., Colo 805
Boston Stock Market and Prices Weekly
Boston Syndicate, S. Dak.....258, 316
Boston & Texas Mg. Co..... 348
Bosun Mine, B. C..... 642
Boucher Lease, Mo..... 710
Boudreaux's Pat. Copper Printing Block 498
Boulder Canyon Mg. Co., Idaho.. 222
Boulder County Mine, Colo....225, 736
Boulder County Stamp Mills, Colo 436
Boulder Main Reef, W. A..... 496
Boulder Milling Co., W. A..... 589
Boulder Mine, Cal..... 589
Boulder Mine, Colo..... 105
Boulder Mine, Mont..... 736
Boushe & Co., Mo..... 108
Bowers Coal Mine, Mont..... 107
Bowers & Mutton Slate Quarry, Pa 317
Bowie, A. J..... 587
Bowing's Pat. Coke Oven..... 254, 374
*Bowman's Pat. Mine Gate....223, 252, 522, 643
Boyce, Henry H..... 614
Boyd, C. R., Virginia Copper Deposit 93
Boyd, James 164
Boyd, Porter & Co., Pa..... 495
Boyden Brake Co..... 44
Boyle Mine, Cal..... 15
Boys' Pat. Gas Making..... 763
*Braddock's Pat. Composite Pipe 372
Braden, E. B..... 254
Braden William, Mineral Locations in British Columbia..... 519
Bradley Fertilizer Co., Mass..... 434
Bradley, F. W..... 284
*Bradley, Otto & Wolfe's Pat. Prospecting Drill 793
Bradley's Pat. Electric Generator 793
Bradley's Pat. Electric Power Transmission 792
Bradley's Pat. Rolling Mill..... 492
*Braeunlich, Sophia.....211, 213, 241
Brandon & Golden Crown Mg. Co., B. C.....319, 529, 619
Brandon Paint Co., N. Y..... 134
Braschi, Victor M..... 104
Brass, Influence of Bismuth on.... 519
Braund House Mine, Mont..... 797
Brayton, A. P..... 704
Brazil, American Coal in..... 721
Brazil Coal Contracts for..... 261
Brazil, Coal Imports..... 341
Brazil Coal Mine, Ind..... 76
Brazil, Manganese Ore..... 65
Brazil, Monazite in..... 756
Brazing Metals, Midgley & Fink's Pat 493
Breaking Rolls, Edison's Pat..... 133
Breckenridge - Mammoth Mine, Utah 19
Breckenridge Placers, Colo..... 346
Breece Mg. Co., Colo..... 467
Brescia Mining Co., Cal..... 225
*Bresson's Pat. Electric Furnace. 583
Brevoort, W. H..... 764
Brewer, W. M..... 644
Brewer, W. M., Associated Gold Mines of British Columbia..... 183
Brewer, W. M., Ben d'Or Mines, B. C 483
Brewer, W. M., British Columbia Notes 281
Brewer, W. M., Lillooet River, British Columbia 9
*Brewer, W. M., Lillooet River and the Squamish Trail, B. C.. 515
Brewer, W. M., Mineral Resources of Vancouver Island, B. C..... 638
Brewer, W. M., Prospecting in Northern British Columbia..... 550
Brewer, W. M., Prospecting on the Upper Lillooet, B. C..... 62
*Brewer, W. M., Rossland District, B. C..... 40
Brewster Brothers Coal Mine, Ohio 437
Brick Industry, Mich..... 221
Brick, Ingersoll's Pat..... 703
Brick Kiln, Cook's Pat..... 642
Brick Kiln, Wannamaker's Pat... 193
Brick Machine, Berry's Pat..... 703
Brick Machine, Klay's Pat..... 763
Brick Machine, Rowe's Pat..... 523
Brick Surfacer, Chambers' Pat... 523
Bricks from Slate Rubbish..... 129
"Bridge Engineer's Pocketbook". 33
Bridger Coal Mines, Mont..... 317
Brier Hill, Iron and Coal Co., O.. 434
Brigham's Pat. Evaporator..... 732
Bright, George W.....254, 374
Brill, William 134
Brimstone .....(See Sulphur)
Brimstone, Arrivals 54
Brimstone, Freight Rates on..... 741
Brimstone Prices .....Weekly
*Brinell's Chart of Fracture and Carbon in Steel..... 755
Bringham Mg. & Milling Co., Colo. 676
Briquette Coal Co., N. Y..... 404
Briquette Machine, Cobb's Pat.... 673
Briquette Making, Corning's Pat. 613
*Briquette Press, White..... 431
Briquettes, Ancient 342
Bristol Co., Conn..... 704
British America Corporation....49, 109, 200, 230, 379, 499, 559, 565, 619, 649, 709, 769
British-American Gold Mg. Co., S. Dak..... 798
British-Canadian Goldfields of the Klondike 775
British Canadian Goldfields of the Klondike and Mr. Ogilvie..... 752
British Coal Mine, Explosives in 161
*British Columbia 515
British Columbia Bullion Extractraction Co.....79, 109, 439, 529, 649
British Columbia Chamber of Mines..... 554
British Columbia, Cyanide Plant in..... 102
British Columbia Dividends..... 49
British Columbia Gold Fields Co., B. C. 740
British Columbia, Lillooet River and Tributaries..... 9
British Columbia, London Agency 565
British Columbia, Mineral Locations 519
British Columbia Mines..... 62
British Columbia Mining Regulations 619
British Columbia Notes..... 281
British Columbia, Prospecting in the Northern District..... 550
*British Columbia, Rossland District 40
"British Columbia, Rossland in 1898" 723
British Columbia, Telluride Ores. 769
British Columbia, Vancouver Island 638
British Dollar in the East..... 413
British Guiana, Gold:..200, 380, 500, 620
British Guiana Gold Exports..... 320
British Guiana, Gold Output..... 800
British Investing Public and the Promoters 632
British Iron Ore Supply..... 212
British Iron Trade, Note on..... 574
British Mine, Colo.....346, 525
British Slate Trade..... 661
British South Africa Co..... 505
British Steel Production..... 332
Broadway Mine, Mont..... 498
Brockington, Charles..... 464
Brockman, John..... 194
Brockunier, S. H..... 734
*Broken Hill Mining and Metallurgical Development Works, N. S. W..... 248
Broken Hill Proprietary Co., N. S. W.....79, 349, 439, 709
Broken Hill Proprietary Co., N. S. W., Report..... 460
*Broken Hill Proprietary Co.'s Smelting Works, N. S. W..... 248
Bromide Mine, Colo.....406, 616
Bromide Mg. Co., Wyo..... 529
*Brominating Apparatus, Figaniere's Patent..... 553
Bromine, Stop Cocks for..... 792
*Bromly, A. H., Gold Ore Treatment in the Hauraki Peninsular, N. Z..... 575
Bronzing Machine, Emmerick's Patent 612
Brooker's Patent Rolling Mill..... 133
Brookfield Mine, N. S..... 139
Brooklyn Institute..... 494
Brooklyn Wire Nail Mills, N. Y.. 164
Brook Ocean Sand Mines, Alaska 255
Brooks & Altman's Patent Rock Drill 432
Brooks Oil Well, Pa..... 48
Brooks, W. E..... 74
Broschgans' Patent Gas Apparatus 102
Brotherton Iron Mine, Mich..... 316
Brown, A. T..... 44
Brown Bear Mines, Idaho..... 107
Brown Bear Mining Co., Cal..196, 315, 436, 496, 615, 795
Brown Conveying Machine Co.... 645
Brown, E. F., Mining Ore Bodies of Uniform Grade..... 548
Brown, H. H..... 74
Brown Hoisting and Conveying Machine Co., O.....555, 704
Brown, Horace F..... 434
Brown, H. Y. L., "Wadnaminga Gold Field, South Australia"... 513
Brown, R. E..... 434
Brown & Son's Quarry, N. Y..... 198
*Brown & Steely's Patent Concentrator 763
Brown, W. G..... 674
Browning Coal Mine, W. Va..... 409
Brownlee, Frank L..... 584
Brownlee, McCullaugh & Co., Mo. 77
Brown's Patent Pulverizer..... 582
*Brown's Patent Roasting Furnace 162
*Brown's Patent Rock Drill..... 133
Brunner, Joseph P. & Co., Special Report ..... Weekly
Brunner, Mond & Co..... 593
Bruno Mine, Cal..... 15
Brunswick Con. Gold Mining Co., Cal.....285, 405, 414, 466, 555
Brunton Chemical Co., O..... 194
*Brush, Charles F., Etherion..... 549
Brush, George J., "Determinative Mineralogy and Blowpipe Analysis" 513
Bryan, George J..... 44
Bryan Mine, Pa..... 770
Bryant, Thomas..... 494
Buchanan, E. E., "Tables of Squares"..... 183
Buchanan Hill Mine, Cal..... 435
Buchanan Mine, Cal..... 585
*Buchanan Rock Breaker and Crushing Rolls 610
Buchanan's Patent Coke Discharger 193
Buckeye Mine, Colo..... 406
Buckeye Mining Co., Utah.....18, 78
Buckskin Placer, Mont..... 407
Bucyrus Company, Wis..... 555
*Bucyrus Dredge, Grasshopper Creek, Mont..... 728
Buena Vista Smelter, Colo..... 225
Buffalo Bill Placer Co., Idaho..... 197
Buffalo Forge Co., N. Y..... 495
Buffalo Hump District, Idaho, 256, 346, 736
Buffalo Iron Market.....Weekly
Buffalo Meeting American Institute of Mining Engineers..484, 518, 546
Buffalo Mining Co., Colo..... 496
Buffalo Mining Co., Ont..... 439
Buff & Berger, Mass..... 615
Bugg's Patent Electric Battery.. 762
Bugg's Patent Portable Electric Lamp 673
Buhl Steel Co., O..... 254
Building Stones, Kentucky..... 190
Bullene, Frank J..... 404
Bullion Beck Mining Co., Utah, 78, 109, 186, 205, 229, 289, 619
Bullion Beck Tunnel, Utah..... 558
Bullock Electric Co., O..... 555
Bullock, F. W..... 434
*Bullock M. C. Co., Central Valve Engine 395
Bullock M. C. Mfg. Co., Ill.....44, 285
Bull of the Woods Mine, N. M.... 798
Bully Boy Mine, Ont..... 20
Bunker Hill & Sullivan Mining Co., Idaho.....376, 497
Burden Iron Co., N. Y..... 14
*Burdict's Patent Forging Machine 552
Burgess Steel Works, O..... 195
Burke & Co., Mine., Mo..... 198
Burley Gold Mining Co.....320, 379, 409

Burlington Mine, S. Dak..... 108
Burnett's Patent Coal Tipping.... 43
Burnham, F. R..... 554
Burning Moscow Mine, Utah..... 499
Burns Mine, Colo..... 315
Burn's Patent Steel Making..... 403
Burnt River Gold Mining & Milling Co., Oregon..... 648
Burt Gold Mining & Milling Co., Colo..... 616
Burt, William 764
*Burton's Patent Electric Metal Heater 733
*Burton's Patent Electric Metal Tempering 732
*Burton's Patent Electric Ore Separator 732
Bush Copper-Gold Co., S. Dak.... 588
Bush, E. F..... 211
Bush, William H..... 494
Bushnell, G. M..... 494
Buster Mine, Arizona..... 45
Butchard, W. W..... 404
Butcher Boy Group, Colo..... 646
Butcher Creek District, Montana 377
Butte & Boston and Boston & Montana 511
Butte & Boston Mine, Wash..169, 589
Butte & Boston Mining Co., Montana..17, 78, 168, 228, 258, 288, 317, 347, 527, 558, 587, 647, 738
Butte Copper Consolidation Reports 355
Butte Reduction Works, Mont.. 767
Butte Sampling Works, Mont..258, 437
Butte-Saratoga Mining Co., Mont. 317
Butte Wedge Mine, Cal..... 405
Butters, Charles....14, 284, 344, 464, 524
Butters, Charles, Experimental Metallurgical Plant, Salt Lake 68
Butters Mines, Cal..... 225
Butonwood Colliery, Pa..... 288
Buxton Company, S. Dak..... 738
Buzsaw Group, Montana..... 77
Buzzo, Capt. Thomas..... 164
By-product Coke Ovens in England 454
By-product Ovens, Coking in.... 484
By-products in Copper Production 32
*Byram's Patent Cupola..... 163
*Byrnes' Patent Sampling Machine 253

C

*Cable Tramway, Margesin's Patent 313
Cabrera, Raimondo, Mineral Resources of Cuba.....301, 308
Cadmium, Greece 490
Cady Mfg. Co., Colo.....256, 346
Cajon Pass Coal Find, Cal..... 645
Calamity Jane Mine, Wash..... 469
Calcium 492
Calcium Carbide.....162, 609
Calcium Carbide in Europe..... 666
Calcium Carbide in France..... 333
Calcium Carbide in Germany..... 95
Calcium Carbide Making, Wood's Patent 343
Calcium Carbide Manufacturing in Ireland 282
Calcium Carbide Regulations in New York 754
Calcium Carbide Treatment, Deuther's Patent..... 793
Calcium Carbide Works, New..... 274
Calcium Hydride..... 244
Calcium, Metallic..... 155, 424
Calcium Nitride..... 579
Calcium, Properties of..... 668
Caldron, J. D..... 284
Caledonia Coal Co., Pa..... 288
Caledonia Mine, Colo..... 136
Calhoun Mine, Colo..... 225
Calhoun Mine, Ga.....46, 586
California Asphaltum Co..... 271
*California, Bituminous Rock Deposits in Santa Barbara County 278
California Borax Co., Cal.....556, 645
California Borax Deposits..... 612
California Debris Commission.... 196
California, Fuller's Earth.....135, 676
California Gold Mining..... 421
California, Heavy Stamps..... 91
California Mine, Cal..... 135
California Mine, Colo..... 616
California Miners' Association, 345, 614, 775
California Mines, Register of..... 662
California Oil Production..... 676
California Placers 75
California Powder Co..... 344
California State Anti-Debris Association 676
California, State Mineralogist.... 662
California State Miners' Association, Meeting..... 670
California, Sulphuric Acid Making in 271
California, Talc..... 676
California, University of.....134, 644
Calkins, R. M. Co., Cal..... 645
Callaghan, H. C..... 554
Calliope Mining Co., Colo.....197, 406
Calloway, A. W..... 224
*Cal's Patent Hydrocarbon Burner 733
*Calnan's Patent Roasting Furnace 583
Caloric Reduction Company..... 642
"Calorific Equilibrium of the Blast Furnace" 93
*Calorimeter, Uehling's Patent... 103
Calumet & Hecla Copper Sales.... 113
Calumet & Hecla Mining Co., Mich.....227, 557, 677
Calumet & Hecla Mining Co., Mich., Report.....151, 158
Calumet & Hecla Ores..... 462
Calumet Mine, Colo..... 405
Calvin, S., "Report of Iowa Geological Survey"..... 333
Camas No. 2 Mine, Idaho..... 406
Cambria Iron Co., Pa.....261, 645, 712
Cambria Iron Mine, Mich..... 16
Cambria Steel Co., Pa..... 735
"Cambria Steel—Handbook of Structural Steel"..... 423
Cambria Steel and Iron Co., Ohio. 254
Camenge, E., "Gold in Nature".. 363
Cameron Island Mining Co., Ont 379, 479
Cameron Island, Ontario.....20, 49
Cameron Mine, Cal..... 315
*Cam Filler, Blanton's Patent..... 463
Camilla Mine, Colo..... 75
Cammilitti Mine, Cal..... 135
Campbell, Allen G.....134, 224
Campbell & James' Patent Roasting Furnace 133
Campbell, J. D..... 74
Campbell Mine, Cal..... 556
Camp Bird Mines Co., Colo...406, 706
Camp & Co., Mo..... 47
Camp, F. E..... 614
Canada, Iron and Steel Production 454
"Canada, Law of Mines"..... 332
Canada, Sale of Yukon Placers... 691
"Canada, Statistical Yearbook".. 483
Canadian American Mining Co., Ont 319
Canadian-British Columbian & Dawson City Telegraph Co..... 775
Canadian Copper Co., Ont..... 754
Canadian Goldfields, Ltd.....49, 79
Canadian Mineral Co., Ont..... 439
Canadian Oil & Coal Co., Ltd.... 735
Canadian Pacific Copper Wire Line, London..... 461
Canadian Pacific Exploration Co., B. C..... 79
Canadian Prospectus..... 516
Canadian Rand Drill Co..... 465
Candalaria Mine, Idaho..... 16
Cannelton Coal Co., W. Va..... 349
"Cantilever Bridges, Theory and Calculation" 2
Cantano's Patent Electro Motor. 703
Canton Rolling Mill Co., O..... 285
*Canyon City Electric Power Plant 700
Canyon del Oro, Ariz..... 195
*Capen's Patent Stamp Mill..... 312
Cape Placers, Mont..... 17
Capillo, Juan..... 14
Caplen, A. D..... 794
Carbide Cartridge, Dickerson's Patent 372
Carbolite 692
Carbonado Coal Mine, Wash...78, 679
Carbon, Allotropic..... 71
Carbon Coal Co., Wash..... 79
Carbon Slate Co., Pa..... 47
Carbonate Camp, S. Dak.....378, 468
Carbons in Brazil..... 608
Carborundum 372
Carborundum Company, N. Y..... 645
Carborundum Compound, Acheson's Patent 763
Carburetor, McGowan's Patent.... 103
Carburetor, Martenette's Patent. 583
Carburetor, Parrot's Patent..... 733
Carburetor, Smith's Patent..... 192
Carburetor, Stephenson's Patent. 223
Cardigan Mining Co., Colo..... 225
Carey, J. S..... 524
Cargo Muchacho Mine, Cal..... 615
Cariboo Camp, Colo.....45, 166
Cariboo Con. Mining Co., B. C... 559
Cariboo District, B. C..... 230
Cariboo Gold Fields Co., Can... 710
Cariboo Gold Mining Co., B. C... 49
Cariboo Hydraulic Mining Co., B. C.....230, 559
Cariboo Mining & Smelting Co., B. C..... 79
Carissa Mine, Wyo.....139, 409, 769
Carl Bay, Ontario..... 49
Carlstadt Chemical Co., N. J..... 764
Caroline Mining Co., Colo..... 706
Carlotta Gold Mining Co., Cal..... 136
Carlotta-Pennsylvania Mine, Cal. 286
Carmen Mining Co., Mexico..... 470
Carnahan, F. W., Last Chance Decision 154
Carnegie, Andrew, on Steel Production and Exports..... 602
Carnegie Steel Co., Pa..44, 51, 74, 134, 164, 224, 285, 434, 524, 555, 675, 795
Carnegie Steel Co., Pa., Blast Furnace 121
Carnegie Steel Co., Pa., and the Iron Casting Patents..... 661
Caroline Mining Co., Colo.....197, 406
Carpenter, R. Forbes, "Report on Alkali Works in Great Britain" 363
Carp Lake Mine, Mich..... 467
Carragailla District, New Mexico 258
Carapato Gold Mine, Brazil..... 350
Carr Mine, Colo.....316, 496
Cartagena, Spain, Iron Ore Market 532, 592, 802
Carter, F. L., Amalgam Treatment in the Transvaal..... 578
Carter, F. L., Cyanide Poisoning. 663
Carty's Patent Hydraulic Pump.. 403
Casas Grandes Land Office, Mexico 530
Case, J. R..... 314
Case, William H.....494, 554
Casey, George H..... 764
Casey, T. B..... 404
Cashen-Hines Mine, N. S..... 649
Cash Rock Mine, Cal..... 75
Casitas Oil District, Cal..... 285
*Casler's Patent Electric Drill..... 222
Cass & Co., Mine, Mo..... 587
*Casting Ingots, McDonald's Patent 313
*Casting Ladle, Levoz's Patent.. 522
Casting Machine 454
*Casting Machine, Hardy's Patent 313
Cast Iron Blowing Cylinders, Smeaton 606
Castle Creek Placers, S. Dak..138, 229
Castle Creek Gilsonite Deposits, Utah 649
Castner-Kellner Alkali Co 451
Catalpa-Crescent Mining Co., Colo.....406, 616
Cataract Placer, Mont..... 797
Catoctin Mountain Iron Co., Md.. 134
Catton, Morris..... 595
Caucasus, Manganese Ore in..... 485
Caucasus, Petroleum..... 699
Cayiloma Mines, Peru, Fuel at.... 727
Cayot Mine, Cal..... 795
C. D. Mine, Mont..... 47
Cedar Hills Group, Utah..... 619
Cedar Island Gold Mining Co., Ont.....49, 620
*Cedros Island Mg. Co., Mexico.. 559
*Cement, American".....215, 543
Cement Combine, Japan..... 607
Cement and Concrete, Proportion 244
Cement Deposit, Zaka Lake, Cal. 375
Cement, Fire-Proof, New..... 274
Cement, Hydraulic, Notes on..... 544
Cement in Japan..... 246
*Cement Kiln, Lavocat's Pat..... 703
Cement Making, Gallinowski's Pat. 13
*Cement Plaster in Kansas..... 576
"Cement, Portland, Manufacture and Use" 693
Cement, Slag 282
Cement Trade, Great Britain..... 547
Cementing Bolts in Masonry..... 184
Census Bill 31, 61
Centennial Copper Mg. Co., Mich., 76, 346, 407, 506, 557, 594, 706
Centennial Eureka Mg. Co., Utah, 18, 78, 259, 408, 679, 739
Center Star vs. Iron Mask Mg. Co., B. C.....680, 799
Center Star Mg. Co., B. C., 230, 290, 319, 409, 439, 469, 589, 769
Center Valley Land & Zinc Co., Mo. 617
Center Valley Mg. Co., Mo..... 347
Central City District, S. Dak..... 558
Central City Electric Power Co., Colo. 406
*Central City Mine, Colo.....196, 346
Central Coal & Coke Co., Mo.... 475
Central Eureka Mg. Co., Cal. 555, 585
Central Gold Mg. Co., Mexico.... 49
Central Lead Co., Mo.....17, 377
Central Mining Institute, Pa..... 74
Central Ore Sampling Works, Colo. 164
Central Phosphate Co., Tenn..... 798
Central Railroad of West Virginia 79
Central Stamping Co., N. Y..... 235
*Central Valve Engine, Willan's 395
Centralia Colliery, Pa..... 288
Centrifugal Pump, Richards' Pat. 133
Centrifugal Pumps in Series..... 666
*Centrifugal Separator, Link's Pat. 552
Centrifugal Separator, Robde's Pat. 703
Century Mg. Co., Colo..... 346
Ceramic Composition, Schirm's Pat. 342
Cerium Ore, Duty on..... 544
Chadbourne, W. H..... 314
Chaffee Notaway Mine, Colo..286, 496
*Chain Making Machine, Davis' Pat 373
Chainman Mines, Nevada..... 618
Chalfant, John W..... 794
Chalmers, W. J..... 524
Chamberlain Mine, Cal..... 796
Chamberlain, W. J., Ore Buying Co., Colo..... 676
Chambers, A. M..... 344
Chambers' Pat. Air and Gas Mixer 732
Chambers' Pat. Brick Surfacer.. 523
Chambers' Pat. Coke Ovens..... 163
Chambers, R. C.....134, 254
Champion City Mg. Co., Colo.... 405
Champion, J. F.....254, 494
Champion King Mine, Colo..... 436
Champion Mine, Cal..... 765
Champion Mine, Colo.....45, 145, 616
Champion Mine, Oregon..... 258
*Champion-Providence Decision, 214, 303, 362
Chandler Iron Co., Minn..77, 227, 257, 498, 527, 737
Chandler, J. A..... 584
Chapin, Henry A..... 764
Chapin Iron Mine, Mich.....137, 737
Chapman, C. D..... 254
Chapman Slate Quarry, Pa..... 138
*Charcoal Kiln, Ljundberg..... 309
*Charles' Pat. Reverberatory Smelting Furnace 253
Charles' Smelting Furnace..... 731
Charleston Clendennin & Sutton Railroad, W. Va..... 19
Charleston, S. C.,Phosphate Shipments....84, 114, 234, 355, 504, 711, 742
Charleton, A. G..... 254
Charleton, John..... 164
Charlier's Pat. Lead Sulphite Manufacture..... 193
*Charlier's Pat. Smelting Furnace..... 763
Chase, E. E.....644, 704
Chauteaugay Ore & Iron Co., N. Y..... 614
Chemainus Mg. & Sm. Co., B. C.. 715
Chemical Imports, U. S..... 741
Chemical Industry Society..... 134
Chemical Industry, New York Section, Society..... 674
Chemical Market ..... Weekly
Chemical Mg. Co., Ont..... 379
Chemical Trade Combination..... 234
Chemical Trade, Japan..... 789
Chemicals, Cuban Tariff on..... 771
Chemicals, Prices.....Weekly
"Chemistry, Analytical" 393
Chemistry and Inflammable Gases 191
Chemistry, Industrial..... 271
"Chemistry and Mineralogy Report to Geological Survey of Canada" 453
"Chemistry Year-Book of 1897".. 93
Chemung Mine, Colo..... 766
Cherokee-Lanyon Spelter Co., Kan. 675
Cherokee Mine, Cal..... 345
Cherokee Ocher & Barytes Co., Ga 406
Cherry Creek Gold Mg. Co., Ariz. 466
Chesapeake Mg. Co., W. Va..... 529
Cheasapeake Mg. & Tunnel Co., Colo. 556
Chesapeake Tunnel, Colo..... 375
*Chester, E. P.,Treatment of Tailings in the Witwatersrand..... 5
Chester Pipe & Tube Works, Pa. 254
Cheticamp-Galena Mg. Co., N. S. 530
Chicago Chemical Works, Iowa... 44
Chicago Coal Market.....Weekly
Chicago & Cripple Creek Tunnel, Colo. 75
Chicago Gold Mg. Co., Ariz..... 195
Chicago & Iowa Coal Co., Iowa.. 526
Chicago Iron Market.....Weekly
Chicago & Leadville Gold Mg. Co., Colo. 166
Chicago Mine, Colo..... 145
Chicago Mine, S. Dak..... 138
Chicago Mg. & Dev. Co., Cal.... 676
Chicago Pneumatic Pat. Drill.... 373
Chicago Pneumatic Tool Co..... 465
Chicago Portland Cement Co., Ill. 134, 555
Chicago Portland Cement Co., Plant 544
Chicago School of Assaying..... 404
*Chicago Standard Ore Car..... 577
Chicago & Two Bit Mg. Co., S. Dak. 18, 738
Chicago Virden Coal Co., Ill..497, 706
*Chick's Pat. Coal Washer..... 613
Chicora Fertilizer Co., S. C.....14, 624
Chihuahua Mg. Co., Mexico..... 440
Childs, W. H..... 284
*Chilean Mill, King's Pat..... 523
Chilean Nitrate Companies..... 451
Chilean Nitrates, Chlorates in.... 93
Chilkoot Camp, S. Dak..... 48
Chilkoot Mine, S. Dak..... 558
*Chilkoot Summit 65
Chillagoe Copper District, Queensland 511
Chimney, Ganzel's Pat..... 373
China, American Railroad Builders in 430
China, Diamonds in Shantung.... 218
*China, Eastern, Iron and Coal in 365
China, French Commercial Mission to 805
China, German Operations in..... 131
China, Gold and Silver.....130, 364, 513
China, Patents..... 394
China, Quicksilver Ores from..... 728
China, Railroad Contracts..... 726
China, Sumatra Oil in..... 127
China, Rail Bids for..... 21
Chinese Coal, Testing..... 372
Chinese Iron Ore in Austria..... 551
Chism, R. E., Assaying for Quicksilver 486
*Chlorate Making, Clark's Pat.... 312
Chlorate Works, St. Michel Electrolytic 730
Chlorates in Chilean Nitrates..... 93
Chloride Group, Colo..... 226
Chloride of Lime..... 552
*Chloride Point Mine and Mill, Utah 605
Chloride Point Mg. Co., Utah 19, 169, 559, 739, 799
Chlorination, Cost of at Alaska Treadwell Mill 272
Chlorination of Gold Ores, Smith's Pat. 43
*Chlorination Mill at Colorado City 425
Chlorination at the Mount Morgan Mine, Queensland..... 723
Chlorination Plant, Landin, in Sweden 33
Chlorination Plants in the Northwest 132
Chlorination Tanks, Lead Lining. 612
Chlorination Works, Iron Stacks at 573, 603
Chlorine Extraction, Scott's Pat. 763
Choctaw, Oklahoma & Gulf Railroad & Coal Co., Indian Ter.... 437
Chollar Mg. Co., Nev..... 108
Chowder, Charles N..... 734
Christmas, W. G..... 524
Chrome Ore, Turkey..... 635
Chromite, Occurrence and Chemical Composition 696
"Chromium Estimation in Rock" 363
Chrysolite Mg. Co., Mexico..... 470
Churchward, B. F..... 494
*Chute, Cochran's Pat..... 582
Cigale Mine, Utah.....409, 499
Cincinnati Coal Market.....Weekly
Cincinnati Engineers' Club..... 434
Cincinnati Mine, Idaho..... 406
Citizen Group, Colo..... 226
City of Paris Mine, B. C..... 200
City of Spokane Mine, B. C..... 439
Claim, Description of..... 221
Claim, Location and Marking..... 221
Claim, Right to File Notice..... 158
Claims, Location and Acquisition 130
Clancy District, Mont..... 168
Clapp's Pat. Blast Furnace..... 433
Claremont, Leopold, How to Identify Precious Stones..... 606
Clarissa Gold & Copper Mg. Co., Utah 619
Clark Fork Coal Co., Mont..... 347
Clark Iron Ore Mines, Va..... 589
Clark, J. T. A..... 554

Clark, Latimer 614
Clark, Thomas J..... 524
Clark, W. A.....404, 494
Clark, Wm. J., "Commercial Cuba" 693, 783
*Clark's Pat. Chlorate Making... 312
Clark's Pat. Coal Screen..... 193
Clark's Pat. Tamping..... 433
*Clark's Pat. Tuyere Iron..... 733
Clausthal Mining School, "Programme for 1899"..... 303
Clay, Burnt in Concrete 611
Clay County Mine, Colo..... 145
"Clay Deposits in North Carolina" 33
Clay, Fusibility of..... 485
Clay Industry in Maine..... 161
Clay, Kentucky..... 190
Clay Press, Merrill's Pat..... 192
Clay Resources of Missouri..... 426
Clay, White, S. Dak..... 258
Clay Resources and Industry of Alabama 369
Clay and Stone in S. Dak..... 371
Clays and Building Stones, Wyoming 546
Clays and Clay Industry of Massachusetts 245
Clays of Louisiana..... 450
Clays of Massachusetts..... 301
Clayton Mg. & Sm. Co., Idaho.256, 616
Clair Creek Electric Power, Colo. 225
Clement, V. M.....674, 734, 764
Clendinin, James W..... 494
Clendenen, W. W., Louisiana Clays 456
Cleopatra Mine, S. Dak..... 199
Cleopatra Mg. Co., Colo..197, 646, 706
Cleveland Civil Engineers' Club, 104, 194, 524
Cleveland Cliffs Iron Mg. Co., Mich. 766
Cleveland Iron Market.....Weekly
Cleveland's Pat. Electric Connection 732
Cleveland Stock Market and Prices ..... Weekly
Clifton Belle Mine, Colo..... 616
Climax Mine, Ont..... 439
Cling Surface Mfg. Co., N. Y..... 374
Clinton Mg. Co., S. Dak..... 738
Clinton Mg. & Milling Co., Colo.. 705
Clippers Mine, Pa..... 770
Clonbrook Boiler Co., N. Y..... 494
Cloquet Slate Quarry, Minn..... 257
Clotton, J. H., Iron Stacks at Chlorination Works 573
Coal, Alabama 694
Coal, American for France..... 726
Coal, American in South America 751
Coal, Argentina 492
Coal in Asia Minor..... 218
Coal, Austria-Hungary..... 276
Coal, Belgium 666
Coal, Cannel in Tasmania..... 664
Coal Chute, Crew's Pat..... 313
*Coal Chute, Darrah's Pat..... 73
Coal and Coke, Cost of in Germany..... 697
Coal Combination, Illegal..... 130
Coal Competition, West Virginia and Ohio 424
*Coal Crusher, Griffith's Pat..... 343
Coal Consumed at Mines, Belgium..... 674
*Coal Cutter, Garforth's Pat..... 643
Coal Cutter, Johnson's Pat..... 553
Coal Cutter, Lascelles' Pat..... 343
Coal Cutter, Palmer's Pat..... 703
Coal Dale Colliery, Pa..... 498
Coal, Division of Marketable Anthracite 2
Coal, Estimation of Sulphur in.... 307
Coal Exports to Africa..... 320
Coal Exports, Alabama..... 135
Coal Exports, Great Britain....97, 247, 372, 514, 671, 760
Coal Exports from Norfolk..... 290
Coal Exports, Pocahontas..... 260
Coal Exports to South America.. 230
"Coal Exports of the United Kingdom" 393
Coal Exports, U. S..... 241
"Coal Fields of Saginaw, Mich.". 273
Coal Fields of Upper Bavaria.... 548
Coal, German East Africa..... 453
Coal in Greece 551
*Coal Handling Apparatus, Greenerd's Pat..... 282
Coal Handling at Shaft..... 604
"Coal in Illinois; Report of State Bureau of Labor Statistics".... 33
Coal Imports, Brazil..... 341
Coal, India 95, 727
*Coal and Iron in Eastern China 365
Coal in Japan..... 368
Coal in Kansas..... 664
Coal Loading Machinery, Spring Valley, Ill 700
Coal Markets: Anthracite, Bituminous, Birmingham, Chicago, Cincinnati, Pittsburg.....Weekly
Coal Market, Shanghai, China.... 770
Coal, Measure of Damages for.... 670
Coal Measures, Newfoundland.... 800
Coal Mine Accidents, Belgium.... 490
Coal Mine, a, Burned Out..... 454
*Coal Mine Hoisting Engine..... 491
Coal Mine Labor in Belgium..... 611
Coal Miners' Agreement, Alabama 80
Coal Miners' Convention..... 710
Coal Miners' Strike, Colo..... 136
Coal Miners' Strike, Illinois..136, 452, 467, 481
Coal Miners' Strike, Wales...271, 290
Coal Miners' Wages in Germany and U. S.....422, 551
Coal Mines, Arkansas Bonanza.. 579
Coal Mines, Belgium, Carelessness in 397
Coal Mines, Japan..... 332
Coal Mines, Missouri..... 641
Coal Mines, Montana..... 805
Coal Mines, Montgomery, W. Va.. 619
Coal Mines, Washington..... 799
Coal Mining, Deep, in Belgium, 277, 492
Coal Mining in Holland..... 672
*Coal Mining Machine, Wantling & Johnson's Pat..... 222
Coal Mining, Machine in West Virginia..... 394
Coal, Newfoundland..... 276
Coal, Nitrogen in..... 730
"Coal Output and Prices in Great Britain, Regulation of".....603, 633
Coal, Peru..... 244
Coal in Philippines..... 3
*Coal Pocket, Simpson's Pat..... 282
Coal, Powdered, Furnace, Peck and Patterson's Pat..... 643
Coal Prices, Wales..... 760
Coal Production, Alabama..... 135
Coal Production, Austria..... 483
Coal Production, France.....295, 535
Coal Production, Natal..... 4
Coal Production, New Zealand.... 486
Coal Production, Prussia..... 306
Coal Production, Transvaal..... 230
Coal in Prussia..... 702
Coal Receipts, San Francisco..80, 201, 350, 590, 710
Coal Refused Spanish Ships..... 50
Coal, Rhode Island..... 601
Coal Screen Law, Kansas..... 316
Coal Screen Law, Pennsylvania.. 482
Coal Screen, Clark's Pat..... 193
Coal Screen, Oberegger's Pat..... 433
Coal Shipments to Mexico..... 470
Coal Sizing Before Washing..... 546
Coal and Slate Separation..... 402
Coal Tar for Firing Boilers..... 724
Coal Tar Products, Duty on..... 94
Coal, Tasmania..... 499
Coal, Testing Chinese..... 372
Coal Tipping, Burnett's Pat..... 43
Coal Trade of Germany..... 580
Coal Trade, Lake..... 121
Coal, Trade Name for..... 761
Coal Trade, Mississippi..... 710
Coal Trade Review.....Weekly.
*Coal Trade, Scarcity of Vessels. 770
*Coal Trade, South America..... 217
Coal Trade, West Virginia, and the Railroad..... 662
Coal, Turkey..... 636
Coal Vessels, Scarcity of..... 740
Coal Washer, Eidher's Pat..... 643
Coal Washeries, Pa..... 678
*Coal Wedge, Heiser's Pat..... 493
Coal Weighing, Ingrey's Pat..... 192
Coalinga Oil Co., Cal..... 495
Coast Dredging Co., Mont..... 317
Coates, C. A..... 404
Cobalt..... 311
Cobalt Orp..... 462
Cobb's Pat. Briquette Machine.... 673
Cochiti Gold Mg. Co., N. M....47, 108, 198, 468
Cochran's Pat. Chute..... 582
Cockerill Company, Belgium..... 694
Cockerill Company, Belgium, Gas Engine.....361, 368
C. O. D. Mine, Ariz..... 466
C. O. D. Mine, Colo..... 436
Coffee Creek District, Cal..... 196
Coffeyville Vitrified Brick Co., Kas..... 134
Coghlan, T. A., "New South Wales Statistical Register"....154, 453, 633
Coghlan, T. A. "Statistical Account of the Seven Colonies of Australasia" 753
Cohen, Hardwick A.....74, 224, 314, 404, 734
Cohn, Jillson & Co., Mo..... 678
Coho & Co., N. Y..... 14
Coinage Standard, Uniform..... 421
Coinage, U. S. Mint....173, 323, 443, 592, 684
Coins, Equalizing Value of..... 453
Coins, Foreign.....Weekly
Coke and Coal, Cost of in Germany..... 697
Coke Discharger, Buchanan's Pat. 193
Coke Drawing, Trumps' Pat..... 613
*Coke and Illuminating Gas in By-product Coke Ovens.....428, 458
Coke Making, Improvements in... 577
Coke Oven, Bowing's Pat..... 613
Coke Oven, Collin's Pat..... 343
Coke Oven, Chambers' Pat..... 163
Coke Oven Door, Hilgenstock's Pat..... 373
Coke Oven Door, Weinhaus' Pat. 613
Coke Oven, Hilgenstock's Pat..... 13
*Coke Oven, Hirt's Pat..... 162
*Coke Oven, Hussener's Pat..... 792
*Coke Oven, Keyes' Pat..... 283
Coke Oven, Littleboy's Pat..... 163
Coke Oven Plant, Semet-Solvay, Ensley, Ala..... 578
Coke Oven Power Plant..... 631
Coke from Peat..... 756
*Coke Plant, By-product, Riverside, W. Va..... 761
Coke Prices, Belgium..... 574
Coke Production..... 800
Cokeley, M..... 524
Coking in By-product Ovens..... 484
Colar Gold District, India.....109, 230, 289, 379, 649
Colo Mine, Mich..... 347
Colcord, Gov..... 464
*Cole's Pat. Steam Stamp.....223, 613
Coles, Thomas F..... 734
Co-Lessees, Liability of..... 251
Colin's Pat. Petroleum Desulphurizing..... 133
*Collecting and Transporting System, Hallidie..... 551
Colley's Pat. Converter Lining.... 13
Collins, A. L.....344, 434, 554
Collins, A. L., Temperature in Gold Amalgamation..... 423
Collins, George..... 344
Collins Mine, Wyo..... 409
Collin's Pat. Coke Oven..... 343
Colombia, Mining in..... 589
"Colombia, Republic of".....243, 453
Colonel Sellers Mine, Colo..55, 76, 226
*Colorado City Chlorination Mill. 425
Colorado Coal Miners' Strike..136, 225
Colorado Dividend Paying Mine.. 85
Colorado Electric Power Co., Colo.....75, 226, 255, 405, 556, 685
*Colorado Electric Power Co., Plant..... 700
Colorado Exploration Co., Colo... 677
Colorado Fuel and Iron Co., Report..... 340
Colorado Fuel and Iron Co. and the Federal Steel Co..... 772
Colorado, Gold, First Discovery.. 361
Colorado Gold Mine, Ariz..... 495
Colorado Iron Works Co., Colo., 164, 374, 434, 675, 735, 794
*Colorado, La Plata Mountains... 667
Colorado Mg. Co., Mont..... 647
Colorado Mg. Co., Utah..... 769
Colorado, New Rush..... 781
Colorado & Northwestern Railroad 45
Colorado Ore Reduction Co..... 255
Colorado Smelting & Mg. Co., Mont.....378, 498, 558
Colorado Springs Mining Stock Assoc..... 55
Colorado Springs Mining Stock Market..... 144
Colorado Springs Stock Quotations .....Weekly
Colorado, Tin Ore..... 215
Colquhoun's Pat. Copper Matte Furnace..... 373
Columbia-Bangor Slate Quarry, Pa..... 258
Columbia Iron Mine, Mich..... 526
Columbia Marble Quarry, Cal..... 496
Columbia-Menona Mg. Co., Colo., 256, 796
Columbia Mine, Oregon..... 318
Columbia Mine, Utah..19, 438, 589, 769
Columbia, Mining in..... 282
Columbia University, N. Y..... 464
Columbian Phosphate Co., Tenn.. 528
Columbite in Ontario..... 306
Columbus Machine Co., O..... 644
Columbus Mine, Utah..... 139
Columbus Mg. Co., Cal..... 735
Columbus Mg. Co., Colo..... 436
Colwyn Group, Idaho.....256, 437
Combination Mg. Co., Monta..... 617
Comet Mine, Alaska..... 705
Comet Mine, Cal..... 676
Comet Mine, Mont.....17, 797
Commander Mine, B. C..... 529
Commercial Chemical Co..... 801
"Commercial Cuba".....693, 783
Commercial Mine, Utah..... 648
"Commercial Organic Analysis." 393, 453
Commodore Foote Mine, Colo.... 197
Commodore Mine, Cal.....196, 646
Commodore Mg. Co., Colo.....46, 556
Commodore Mg. Co., Minn....167, 377, 557, 586
Commonwealth Iron Co., Mich.... 737
Commonwealth Mg. Co., Ariz., 195, 315, 345, 465, 795
Comora Mine, Idaho..... 16
Company Not Bound by Superintendent..... 310
Compressed Air Hoist..... 306
Compressed Air Locomotive, Vaulain's Pat..... 643
"Compressed Air Production".... 633
*Compressed Air Water Elevator, Titus' Pat..... 73
Compressed Coal Co., Rhode Island..... 618
Compulsory Performance of Contract..... 580
Comstock Assessment and Values 24
Comstock Assessments..... 504
Comstock Companies, Closing Down..... 55
Comstock Companies, Reduction in Capital.....115, 144
Comstock Companies Statements 505
Comstock Companies, Stock Values..... 475
Comstock Gold Mg. Co., Idaho.... 706
Comstock Lode, Deep Mining..241, 258, 265, 288
Comstock Lode Tailings Working 751
Comstock Lode Unwatering Deep Levels..... 571
Comstock Mine, Utah..... 139
Comstock Mines, Changes in Capital Stock..... 385
Comstock Mines, Financial Statement 385
Comstock Mines, Stoppage..... 18
Comstock Mg. Co., Colo.....45, 136
Comstock Pumping Association, Nev.....407, 415, 468, 535, 558
Comstock Tunnel Co., Nev..... 527
Comstock Theo. B., Mohave County, Arizona..... 156
*Concentrate Receiver, Waters' Pat..... 673
*Concentrator, Brown & Steely's Pat..... 763
*Concentrator, Hallett's Pat...342, 673
*Concentrator, Harlow's Pat..... 43
*Concentrator, Lord's Pat..... 553
Concentrator, Manhattan Patent. 703
*Concentrator, Randolph's Pat.... 703
*Concentrator, Wild's Pat..... 133
*Concentrators at Broken Hill.... 248
Concrete, Burnt Clay in..... 611
Concrete and Cement Production. 244
Concrete Gold Mg. Co., Colo..... 466
Concrete Mine, Colo.....225, 346, 585
Concrete Mixer, Barr's Pat..... 763
Confidence Mine, Cal..... 556, 736
Congress, Meeting of..... 713
Connellsville Coal Co., Pa..... 648
Connellsville Machine & Car Co., Pa..... 495
Connellsville, Pa., Labor in..... 738
Connersville Blower Co., Ind..... 735
Con. California & Virginia Mg. Co., Nev. 521
Consolidated Eldorado Gravel Mg. Co., Cal..... 165
Consolidated Eureka Mg. Co., Cal. 166
Consolidated Golden Gate & Sulphuret Mg. Co., Cal..... 295
Consolidated Gold-fields of South Africa..... 715
Consolidated Kansas City Sm. & Refg. Co.....594, 685
Consolidated Main Reef Co., Transvaal..... 439
Consolidated Odin Mg. Co., Cal.. 165
Consolidated Poorman & Tiger Mg. Co., Idaho.....166, 706
Consolidated Poorman and Tiger Mg. Co., Idaho, Report..... 220
Consolidated Safety Valve Co., Conn..... 344
Consolidated Stanley Mg. Co., Colo.....315, 615
Consolidation Coal Co., Iowa..... 316
Construction Accounts of Mining Companies..... 124
Construction and Mfg. Co., N. Y. 794
Consular Service..... 781
Contention Group, Colo..... 256
Continental Chief Mine, Colo..... 346
Contract by Officer, Binding on Company..... 460
Contributory Negligence.....158, 277
*Converter, Levoz's Pat..... 643
Converter Lining, Colley's Pat.... 13
*Conveyor, Acklin's Pat..... 13
*Conveyor, De Camp's Pat..... 343
Conveyor, Dick's Pat..... 732
Conveyor, Gilman's Pat..... 283
*Conveyor, Jeffrey's Scraper..... 341
Conveyor, Jonte's Pat..... 223
Conveyor, Lancaster's Pat..... 42
*Conveyor, Landis' Pat..... 463
Conveyor, Laurent & Cherry's Pat..... 582
Conveyor, Mason's Pat..... 673
Conveyor, Ward's Pat..... 643
Conveyor, Wellman and Seaver's Pat..... 732
*Conveyor, Willson's Pat..... 583
Cook, Adam, Sons, N. Y..... 735
Cook County Mine, Colo.....225, 676
Cook Mine, Colo 225, 496, 646, 736
Cook's Inlet, Alaska.....165, 555, 705
Cook's Pat. Brick Kiln..... 642
*Cook's Pat. Crusher..... 343
Cooley, B. T..... 464
Coolgardie Pipe Line, West Australia..... 604
Cooling Explosives, Curtis' Pat.. 793
*Cooper, A. S., Bituminous Rock Deposit, Santa Barbara County, Cal 278
Copper Mine, Mont..... 797
Cooper's Pat. Diamond Cutter.... 283
Coplay Furnace, Pa..... 195
Copper Alloy, Secretan's Pat..... 613
Copper Bonanza Mine, Cal..... 285
Copper Camp, Cal..... 75
Copper Charges, English Smelters 481
Copper City Camp, Cal..... 736
Copper Claims, Lawrence County, S. Dak..... 708
Copper Consolidation, Montana... 421
*Copper Converter, David..... 487
Copper and Copper Sulphate..... 602
Copper Corporation of Chile..... 775
Copper in Cuba..... 252
Copper Deposits, Virginia..... 93
Copper Discovery, Alabama..... 705
Copper Discovery in Mexico..... 530
Copper Extraction Process..... 732
Copper Imports, Great Britain.114, 263, 383, 534, 774
Copper Jack Mine, Mont..228, 618, 737, 767
Copper King of Arizona..... 421
Copper King Mine, Colo.....766, 796
Copper King Mining Co., Arizona Suit..... 1
Copper King Mg. Co., Utah..... 319
Copper Market and Prices....Weekly
Copper Matte, Duty on..... 631
Copper Matte Furnace, Colquhoun's Pat..... 373
Copper Matte Smelting, Pennsylvania Salt Manufacturing Company's Pat..... 163
*Copper Mine, A Lake Superior... 35
*Copper Mine, Underground Photographs..... 127
Copper Mininig at Kamloops, B. C..... 698
Copper Mountain District, Cal..... 196
Copper Mountain Mine, Utah..... 48
Copper and Nickel Ores, Assaying..... 462
Copper Nitrate..... 162
Copper, Ontario..... 581
Copper Ore, Newfoundland..... 724
Copper Ores at the Omaha Exposition.....36, 69
Copper in Ores, Smelter's Price.. 462
Copper Outlook for..... 603
Copper Prices..... 662
Copper Printing Block, Boudreaux's Pat..... 222
Copper Production and Exports.. 751
Copper Production, Michigan..... 557
Copper Production, Producers' Committee Statement.....84, 233, 353, 473, 503, 623, 744
Copper Production, Relation of Cost of By-Products to..... 32
Copper Queen Con. Mg. Co., Ariz.....465, 525
Copper Queen and Copper King.. 402
Copper Queen Mg. Co., Mexico, 200, 559
Copper, Quicksilver Separation from..... 94
Copper, Refining Electrolytic in 1897..... 6

Copper Refining, Electrolytic, Cost of..... 481
Copper Refining, Electrolytic, Improvements..... 1
*Copper Region, Wyoming..... 640
Copper in Retorting Amalgam..... 582
Copper River, Alaska.....15, 45, 135
Copper River Country, Alaska, 151, 154
Copper River Mg. & Transportation Co., Alaska.....645
Copper Roofing..... 672
Copper Smelting in Wales..... 665
Copper Speculation, Boston..... 452
Copper Stock Flurry in Boston... 475
Copper Stocks in Boston.....511, 782
Copper Stocks, New in Boston.... 505
Copper Sulphate and Copper..... 602
Copper Sulphate from Metallic Copper 760
Copper, Tasmania.....499, 649
Copper, Turkey..... 635
Copper, U. S. Exports..... 53
Copper Wire Line, Long..... 461
Copper Zone Mg. Co., N. M..... 198
Cora Mine, Mont..... 258
Coram, L. A..... 404
Corbould, W. H.....584, 794
Corby, Frank F..... 104
Cordova Mine, Ontario..... 379
Corinth Copper Mine, Vt..... 469
"Corliss Steam Engine"..... 393
Cornell University..... 434
Corning, C. D..... 464
Corning, Frederick G..... 524
Corning Gas Co., O..... 228
Corning's Pat. Brick Making..... 613
Cornwall, Tin Mining..... 571
Corona Coal and Coke Co., Ala., 195, 410
Corona Coal Co., Mich..... 407
Coronium 191
Corowa Gold District, Victoria... 319
Corrugating Machine, Potthoff's Pat 283
Corsica Iron Co., Minn..... 557
Corsicana Oil Field, Texas..... 378
Corundum Lands, Ontario..... 217
Corundum in Ontario..... 303
Cost Accounts, Mine..... 362
Couch, Thomas.....344, 764
Counterbalancing Hoisting Rope.. 788
Courtenay's Pat. Artificial Stone.. 253
Courtis, W. M., Adirondack Sea-Sand Gold..... 363
Courtis, W. M., Brick Industry of Michigan..... 221
Cowenhoven Tunnel, Colo..46, 226, 436
Cowper-Coles, S., Gold Depositing on Aluminum 93
Cowper-Coles, S., Gold Recovery from Cyanide Solutions..... 160
Cowper-Cowles, S., Process on Broken Hill Ores..... 670
Cowper-Coles, S., Process for Mixed Sulphide Ores..... 422
Cowper-Coles, S., Zinc-Lead Ore Treatment 244
Cowper-Coles' Pat. Sulphide Ore Treatment 703
Coxe Bros. & Co., Pa..... 378
Coxe, C. E..... 74
Coxe, Edward H..... 494
Coxe, E. H., Machine Coal Mining in West Virginia..... 394
Coxe, E. H., West Virginia and Ohio Coal Competition..... 424
Cramp & Sons, Ship and Engine Building Co..... 645
*Crampton's Pat. Stamp Battery. 403
Crane Co., Ill..... 735
Crane, Guernsey's Pat..... 552
Crane, Jonathan..... 614
Cranes in French Steel Works.... 515
*Craney's Pat. Ore Treating Apparatus 793
*Crean's Pat. Magnetic Separator 193
Creditors of Mining Company, Precedence 609
Creede Ore Shipments, Colo..... 46
Creek Coal Fields, S. Dak..... 48
Creel, J. A..... 434
Creighton Nickel Mines, Ont..... 754
Cremer, J. H..... 614
Crescent Gold Mine, Ga....316, 346, 586
Crescent Mill, Utah..... 289
Crescent Mine, Utah.....48, 169, 469
"Crescent Steel—Steel Making"... 423
Cresson, George V. Co., Pa....105, 285, 675
Creosus Mine, Colo..... 405
Crescent Mine, Utah..... 408
Crevasse Mg. Co., Mont..... 317
Crew's Pat. Coal Chute..... 313
Cripple Creek Con. Mg. Co., Colo. 766
Cripple Creek District Electric Railway 136, 466
*Cripple Creek District, Railroads, Colo. 339
Cripple Creek Electric Power.... 286
Cripple Creek, Electric Railroad, Colo. 46
Cripple Creek Gold Production, 106, 226, 376, 525, 705, 736
Cripple Creek Placers, Colo..... 286
*Cripple Creek Railroads, New... 339
Cripple Creek Shipping Facilities. 15
Cripple Creek Stamp Mills, Colo. 796
"Critic," The London and Guinea Pig Directors..... 572
Croasdale, H. E..... 584
Crockett Mine, Colo..... 45
*Croll, H. V., Chlorination Mill at Colorado City..... 425
Crook City Placer, S. Dak..... 348
*Crouse's Pat. Quartz Mill..... 583
Crowell, Benedict..... 644
Crowe's Pat. Blasting Fume Preventing 553
Crown Deep Gold Mg. Co., Transvaal 379
Crown Hill Mg. Co., S. Dak....48, 100, 199, 348, 708
Crown Point & Virginia Mg. Co., Colo.....106, 406, 646, 745
Crown Prince Mine, Colo..... 525
Crown Slate Co., Pa.....168, 318
Crowned King Mg. Co., Ariz..... 615
Crow's Nest Pass Coal Co., B. C.. 649
*Crow's Pat. Gold Mining Dredge 553
Crozer, Samuel A., Jr..... 284
Crucible Furnace, Minck's Pat... 253
Crum Creek Iron & Steel Works, Pa. 254
Crump, M. H., Clay and Building Stones of Kentucky..... 190
Cruse Mine, Mont..... 347
Crusher, Baxter's Pat..... 763
*Crusher, Cook's Pat..... 343
*Crusher, Dyer's Pat..... 403
*Crusher Frame, Gates' Pat..... 223
Crusher, Howell & Berry's Pat... 193
*Crusher, Moffat's Pat..... 433
Crusher, O'Hare's Pat..... 312
*Crusher, Sturtevant's Pat..... 163
*Crushing Boll, Pesant's Pat..... 72
*Crushing Rolls, Bucnanan..... 610
*Crushing Rolls, Fraser & Chalmer's 401
Crushing Rolls, Thomas' Pat..... 433
Crushing Rolls, Treloar's Pat..... 553
Cryolite 462
Crystal Falls Mine, Mich..... 467
Crystal Park Mine, Cal..... 795
Crystalline Mine, Cal..... 105
Crystals, Large..... 788
"Cuba, Commercial".....693, 783
Cuba, Copper..... 252
Cuba, Gold Prospecting in..... 710
Cuba Iron Mine..... 140
Cuba, Mineral Resources.....301, 308
Cuba Mine, Utah..... 199
"Cuba and Porto Rico"..... 663
Cuba, Prospecting in 781
Cuban Bonds, French Holders... 685
Cuban Tariff on Chemicals..... 771
Cudahy-Healy Yukon Mg. Co., Canada 559
Culbertson Mill, Colo..... 466
*Cullinan's Pat. Separator..... 462
Cumberland & Elk Lick Coal Co., Md 766
Cumberland Iron Trap Co., R. I.. 768
Cumberland Mine, Idaho..... 16
Cumberland Mine, Utah..... 289
Cummings, Uriah, "American Cement" 215, 543
Cundy Mine, Mich..... 706
*Cupola, Byram's Pat..... 163
Cupola Practice 519
Cupper's Pat. Aluminum Bronze. 403
Curley, W. B..... 254
Curl, I. Herbert..... 524
Curol Chemical Co., N. Y..... 14
Curran's Pat. Hydrocarbon Burner 703
Currency Convention 263
Currier, C. G., "Water Purification" 753
Currier, W. D..... 554
Curtin's Pat. Slag Cement..... 72
Curtis' Pat. Cooling Explosives.. 793
Curtis, Smith 74
Curtis, W. J..... 464
Cushing, W. C..... 674
Custer Concentrating Plant, S. Dak 768
Custer Mine, Mont..... 47
Cutty Sark Mine, S. Dak.....588, 708, 798
Cyanide and Amalgamation Process Combined 94
Cyanide Consignments in Utah... 798
Cyanide Consumption in Utah.... 469
Cyanide Liquors, Assaying for Gold 753
Cyanide Making, Blackmore's Pat 13
*Cyanide Making, Fogarty's Pat.. 762
Cyanide Manufacture in Germany 454, 579
Cyanide of Mercury..... 162
*Cyanide Mill, Schmidt & Johns, Mont 757
Cyanide Mill Solutions, Analysis. 216
Cyanide Plant in British Columbia 102
Cyanide Plant Supply Co..... 465
Cyanide Poisoning.....271, 663, 783
Cyanide Poisoning, Hydrogen Peroxide Antidote 211
Cyanide Practice in Utah..... 730
Cyanide Products, Utah...108, 348, 408, 499, 558
Cyanide of Potassium, Drawback on 11
Cyanide Slimes, Gold Losses in Smelting 790
Cyanide Solutions, Gold Recovery from 160
Cyanide Tanks 672
Cyanide Works, Poisoning in.... 363

D

Dacy Mine, S. Dak..... 618
Daddy Mine, Idaho..... 47
Dadelzen, E. J. von, "Official Year-Book on New Zealand".... 543
Dagge, F. A..... 134
Dahlonega Con. Gold Mg. Co., Ga 376, 586, 706
Daisy Mine, Idaho..... 136
Daisy Mine, Mont.....168, 347, 558, 618
Daisy Mg. Co., Utah.....109, 139, 259, 379, 438, 528, 619, 799
Dakota Maid Mine, S. Dak.....78, 738
Dakota Mine, Colo..... 616
Dalmatia, Lignite Mining in..... 728
Dalton & Lark Mg. Co., Utah.... 799
Dalton Mg. Co., Utah..... 19
Daly & Eckert Mine, Cal..... 496
Daly Mg. Co., Utah..... 229
Dana, Edward Salsbury, "Textbook of Mineralogy" 423
Dana Mines, Utah..... 109
*Danckwardt's Pat. Alkali Metal Production 163
Daniel Bonanza Mine, Colo..... 197
Daniell, John 335
Daniels' Pat. Rolling Mill Plant.. 463
Dan, Tokuma 104
Daphne Mine, Mont..... 138
Dapto Smelting Works, Australia 341
Dardanelles Mine, Cal..... 105
Darien Gold Mg. Co., Colombia... 380
Darlington, Harry 254
D'Armour & Littledale, N. Y..404, 524
Darrah, H. T..... 524
*Darrah's Pat. Coal Chute..... 73
*David Copper Converter..... 487
Davidson & Hepburn's Pat. Oil Refining 673
Davis, A. R..... 434
Davis, B. C. and Copper King Mining Co., Ariz..... 21
Davis Coal & Coke Co., Md..... 16
Davis Group, Wash..... 469
Davis, Holden & Co., Mo..... 715
*Davis' Pat. Quartz Mill..... 642
Davis Slate Quarry, Pa..... 438
Davis, W. C..... 494
*Davis' Pat. Chain-Making Machine 373
Davison, D. B..... 194
Daw, Albert W., "Blasting of Rock" 783
Dawson City, Colo.....766, 781
Dawson City, Yukon..... 620
*Dawson City, Yukon, View of.... 246
Dawson Farm Coal Mines, Pa..... 471
Dawson, J. W.....404, 524
Dawson's Pat. Sulphide Furnace. 763
Davis' Pat. Retort Door..... 762
Day Chlorination Works, S. Dak. 738
Day Iron Land, Minn..... 586
Day, M. H..... 164
Day Mine, S. Dak..... 259
Dayton Coal & Iron Co., Tenn.... 199
Deadbroke Mine, S. Dak..... 318
Dead Mule Mg. Co., Mo..... 77
Deadwood & Bear Gulch Mg. Co., S. Dak 18, 438
Deadwood & Delaware Sm. Co., S. Dak ..78, 199, 259, 318, 348, 378, 408, 498, 558, 708
Deadwood Gulch Placers, S. Dak. 199
Deadwood & Snake River Mg. Co., Idaho 346
Deadwood Terra Mg. Co., S. Dak. 168, 199, 378
Deaken Mine, Cal..... 105
*Dean's Pat. Pump Regulator..... 283
Dean, T. B..... 194
Dearborn Drug & Chemical Co., Chicago 14, 254
De Beers Con. Co.....79, 325, 349, 355
*De Camp's Pat. Conveyor..... 343
Decatur Car Wheel Co., Ala..... 141
Decatur Copper Mg. Co., Ariz.... 375
Decatur Mine, Colo..... 226
Decca Mine, Ontario..... 409
Decorah Mine, S. Dak.....348, 588
De Costa, F. A..... 644
Deep Mining in Australia..... 784
"Deep Waterways Commission Report" 393
Deer Lodge Mine, Oregon..... 618
Deer Park Mine, B. C..169, 290, 379, 499
Deer, R. B..... 14
Deertrail Mg. Co., Utah.....199, 799
Deer Trail No. 2 Mg. Co., Wash. 19
Defrees, T. M..... 704
Degoutin's Pat. Vanner..... 433
Deitz, Schumacker & Co., Ohio.. 14
De Kalb, Courtney, Graphic Records of Screening Crushed Materials 486
De La Mar, J. R.....74, 734, 764
De La Mar Mill, Utah..... 109
De La Mar Mine, Nev..... 407
De La Mar Mines, Utah...19, 78, 139, 169, 259, 289, 469, 499, 648, 739
De Lamar Mg. Co., Idaho..46, 136, 197, 227, 316, 376, 467, 497, 586, 647, 706
De Lamar Mg. Co., Idaho, Report 38
Delano Mill, Colo.....525, 705, 766
Delaware & Hudson Canal..... 560
Delaware & Hudson Canal, Closing 571
Delaware & Hudson Coal Co..318, 348, 408, 678
Delaware, Lackawanna & Western Co., Pa.....108, 468, 558, 678, 770
Delaware & New Hope Group, Colo 166
Delaware Shaft, S. Dak..... 259
Della S. Mg. Co., Mo..... 527
Del Monte vs. Last Chance Mg. Co 61, 123, 127, 152, 182
*Del Monte vs. Last Chance Mg. Co., Decision 66, 95
Del Monte Mine, Ariz..... 315
Del Norte Mine, Colo..... 646
Del Oro Mine, Ontario..... 379
Delprat, G. E..... 224
Dembinski's Pat. Dredging Bucket 463
Deming's Pat. Tube Machine..... 492
Democrat Mine, Idaho..... 647
Democrat Mountain, Colo.....196, 316
Democrat Mountain Mine, Colo.. 286
Des Moines Coal Co., Iowa..... 16
Demorest Mine, Cal.....345, 495
Denman & Thompson Oil Well, Ohio 528
Denmark, American Ship Material in 483
Dennis Kaolin Mine, Pa..... 768
Denny's Pat. Gold Slimes Treatment 13
Densmore Mine, Cal.....75, 646
Denton, F. W..... 584
Denver Boiler and Sheet Iron Works, Colo 735
Denver Engineering Works Co., Colo 254, 374, 435, 614
Denver Fire Clay Co., Colo..... 585
Denver, Leadville & Gunnison Railroad, Colo 436
Denver Mine, Colo..... 256
Denver Mint Receipts.....85, 714
Denver Stock Quotations.....Weekly
Dephosphorizing Iron, Etter's Pat 732
"De Pontibus; Pocketbook for Bridge Engineers" 33
De Remer's Pat. Water Wheel... 463
Dern, John 494
Desert Queen Mine, Cal.....45, 135
Desloge Con. Lead Co., Mo..... 17
Desmond Mill, Cal..... 105
*Desulphurizing Apparatus, Figaniere's Pat..... 553
Detroit & Deadwood Mg. Co., S. Dak.....48, 259, 498, 708
Detroit District, Utah..... 48
Deuther's Pat. Calcium Carbide Treatment 793
Deutsche Niles Werkzeugmaschinen-Fabrik 765
Development Work Lien..... 251
Devereaux, Charles J..... 434
Devereux, W. B..... 734
"Devonian Shales of New York" 33
Dewey District, Colo..... 376
Dewey Gravel Mg. Co., Cal....765, 795
Dewey Mill, Utah 379
Dewey Mine, Colo..... 136
Dewey, Schley & Sampson Mine, Cal 736
Dexter Mg. Co., Nevada....47, 108, 115, 407, 535
Dialogue, John H..... 524
Diamond Coal and Coke Co., Wyo 79, 619
Diamond County Mine, Mont..... 167
Diamond Cutter, Cooper's Pat.... 283
Diamond Cutting 220
*Diamond Drill Bit, Voliath's Pat. 613
Diamond Hill Mine, Mont..... 198
Diamond Jack Mine, Cal..... 676
Diamond Polishing Tool, Lyon's Pat 733
Diamond R. Mg. Co., Mont..... 167
Diamond Saving, Labram's Pat.. 373
Diamonds, Australia 243
Diamonds in Russia 516
Diamonds in Shantung, China.... 218
Diamondville Coal Mines, Wyo.. 230
Diana Mine, Ariz..... 615
Dick Bland Mine, Colo..... 256
Dickerson's Pat. Carbide Cartridge 372
*Dickerson's Pat. Power from Compressed Gases 163
Dickey, J. C.....434, 674
Dickman, R. N..... 554
Dickson Mfg. Co., Pa..... 374
Dick's Pat. Conveyor..... 732
Die, Hathorn's Pat..... 612
Diehm, John R..... 554
*Diesel Heat Engine..... 10
Diess, Muller & Co., Ohio..... 14
Diestlehorst Dredge, Cal..... 15
Dieterich, Eugen von, Chemische Fabrik 794
Dietreux, August 644
Dike Mine, Colo 406
Dinner Pail, Elmgren's Pat..... 733
Dittman, Edward 734
Diver Mine, Mont..... 168
Dividend Paying Mines, Tables Weekly
Dixie Mine, Colo 136
Dixon, John W..... 254
Dixon, Joseph Crucible Co., N. J. 584, 765
Doane Mine, Wyo..... 739
*Dock's Pat. Blowpipe..... 793
Dodson, C. M. & Co., Pa..... 767
Dolcode Mine, S. Dak..... 618
Dollie B. Mine, Colo.....136, 196, 256, 406, 526, 646
Dombrowa Coal Mg. Co., Russia. 625
Dominion Coal Co., N. S..171, 560, 740, 745, 769, 775, 800
Donald, J. T., Gold Mining in Hastings County, Ontario..... 668
Donella Mine, Cal..... 525
Donetz Coal Field, Russia..... 671
Don, John R., Genesis of Gold Bearing Lodes 485
Don Juan Mine, Oregon..... 78
Don Juan & Pelletreau Mines, Cal 676
Donner's Pat. Black Plate Mill.. 763
Doolittle, W. A..... 134
Doric Tunnel, Colo..... 556
Doris Mg. Co., Colo..... 796
Dorsey, George W. E..... 434
Dorsey, S. W..... 524
Dougherty's Pat. Steel Making... 433
Douglas Con. Placer Mg. Co., Wyo 229
Douglas Creek District, Wyo..... 229
Douglas Island, Alaska, Large Mills 611
Douglas, James 44, 794
Douglas, James, "Memoirs of Dr. Thomas Sterry Hunt" 243
Douglas, Samuel W..... 344
"Dow Engine" 633
Dow, Josiah, "The Dow Engine" 633
Dragon Iron Mine, Utah..... 18
Drake Coal Mine, Ohio..... 168
Drake, Francis, Sinking Funds for Mining Companies..... 34
Drake, Frank, Manganese Ore in the Caucasus 485
Drake, George A..... 685
Drake-Stratton Co., Minn.....377, 497
Draper, T. W. M..... 44
Drawings, Transferring, Itasse's Pat 493
*Dredge Boat, Hammond Gold.... 155
Dredge, Heath's Pat..... 133
*Dredge, Mackie's Pat..... 553
*Dredge for Mining, Kibling's Pat 403
Dredge Prospecting, California... 15
*Dredges, Recent Gold 728
Dredging Bucket, Dembinski's Pat 463
*Dredging for Gold in New Zealand 637
Dreisam Mine, Cal..... 45
Dresser, V. S..... 184

*Driffield, Carey & Wright's Pat. Bleaching Powder Making..... 372
*Drill, Bant's Pat..... 763
Drill, Chicago Pneumatic Patent. 373
*Drill Clutch, Hirlinger's Pat..... 613
*Drill, German Hand..... 609
*Drill, Hartman's Pat..... 43
Drill Hole Mg. Co., Mo..... 137
*Drill, Meissner Electric..... 759
Drilling, Hand Contest..... 368
Drilling in the Klondike..... 372
Drills, Sharpening 372
Drop-Hammer, Good's Pat..... 12
"Drug Trade in Foreign Countries" 393
Drummer Boy Mg. Co., Mo..... 797
*Dryer, Miller's Pat..... 13
*Dryer, Stauber's Pat..... 43
*Drying Apparatus, Edison's Pat. 12
Drying Mesabi Iron Ores..... 453
*Drying Tubes, Convenient Form 609
Dry Placers 642
Drummond Colliery, N. S..... 350
Drummond, Richard O. G..... 284
Dubbs' Pat. Asphalt Manufacturing 223
Ducktown Copper, Sulphur & Iron Co., Tenn.....378, 588
Duclos, Fred 644
Duenweg Mg. Co., Mo..... 587
Dufferin Mine, N. S.....350, 530, 649
Duffy, J. J..... 764
Dufourc, Edward L..... 314
Duke vs. Jordan, Ariz..... 135
Duluth Iron Ore Find..... 526
Duluth Iron Ore Shipments...497, 586
Duluth & Iron Range Railroad 107, 137, 257, 497, 526, 557, 617, 647, 677, 707
Duluth, Missabe & Northern Railroad.....77, 107, 137, 677
Duluth Ore Cargoes..... 227
Duluth Ore Shipments.....77, 137, 287, 557, 647, 707, 737
Dumble, Prof. E. T..... 794
Dumford & Jones Placer, Colo.... 376
Dumoulin's Pat. Electrolytic Deposition of Copper..... 763
Duncan Mill, Mont..... 437
Dundee Mine, B. C.....169, 409, 469, 529
Dunderburg Mine, Cal..... 585
Dundon's Pat. Mixing Machine... 523
Dunham, Louis 524
Dunlap, A. R..... 404
*Dunlop's Pat. Tunneling Shield.. 733
Dunn Mg. Co., Mich.....77, 167, 706
Dupont Powder Co..... 344
Du Puy, Charles M..... 464
Duquesne Tube Works, Pa..... 164
Du Quoin Union Mg. Co., Ill..... 197
Durango Mine, S. Dak.....168, 498
Durrant, Edwin 284
*Duryea's Pat. Lime and Cement Grinder 433
Dustin, Harold C..... 344
Dutch East Indies, Petroleum..... 634
Dutch Guiana, Gold....200, 380, 500, 620
*Dutch Guiana Gold Fields..... 97
Dutch Mine, Cal.....166, 466
Dutton, H. F. & Co., Fla..... 766
*Dutton's Pat. Air Compressor... 283
Dwyer Mine, Colo..... 467
*Dyea Trail 65
*Dyer's Pat. Crusher 403
*Dynamite Cartridge Cap, Ferguson's Pat 343
Dynamite in the Transvaal..... 41

E

Eagle & Blue Bell Mg. Co., Utah 469, 558, 588
Eagle City, Alaska..... 435
Eagle Coal Mine, Pa..... 290
Eagle Creek Development Co., Oregon 258
Eagle Gold Mg. Co., Oregon..... 168
Eagle Harbor Copper Mine, Mich. 497
Eagle Mine, Cal.....195, 585
Eagle Mg. Co., Mo..... 317
Eagleton Mine, Oregon..... 528
East Delta Mine, Cal..... 556
East Helena Smelter, Mont..... 558
East Hollow Mg. Co., Mo.....617, 767
East Le Roi Mine, B. C..... 710
East Monroe Mine, Colo..... 46
East Notaway Mine, Colo.....226, 316, 525, 766
East Pacific Mine, Mont....47, 108, 137, 198, 678, 797
East River Bridge, New York..... 605
Eastern Coke Co., Kas.....376, 437
Eastern Paving Brick Co., N. Y.. 254
Eastwood, P. Bailey..... 584
Eberle, C., "Cost of Power Production" 274
Eclipse Mg. Co., Mont.....407, 767
Economic Gold Extraction Co., Colo 766
Edgar, William H..... 284
Edgemont & Union Hill Sm. Co., S. Dak..18, 48, 78, 168, 199, 318, 498, 679, 708, 738
Edgerton Mine, N. S..... 139
Edgerton's Pat. Battery..... 703
Edison's Pat. Breaking Rolls..... 133
*Edison's Pat. Drying Apparatus. 12
Edison's Pat. Magnetic Concentrator 343
Edith Furnace, Pa..... 591
Edmunds, R. A., "Facts About the South" 153
Edmunds, William 284
Edna Mg. Co., S. Dak..... 679
"Education, Report of Commissioner" 62
Edwards, James 704
Edwards, Joseph & Co., N. Y..... 735
Edwards Mg. Co., Colo..... 375
*Edward's Pat. Emery Cloth Making 343
Edwards' Pat. Gold Ore Treatment 253
Egyptian Mine, Colo..... 145
Egyptian Mineral Group, S. Dak. 438, 618
Eidherr's Pat. Coal Washer..... 643
End of 1898..... 782
Eilers, Anton M..... 284
Eimer & Amend, N. Y..... 374
Elaterite 282
Elba Iron Co., Minn.....167, 586, 707
Elba, Iron Ore..... 130
Elber's Pat. Blast Furnace Slag Treatment 133
Eldora Mill, Colo..... 496
Eldora Town Site, Colo..... 796
Eldorado Mine, S. Dak..... 348
Eldoro Camp, Colo.....45, 75
Eldora Chlorination Mill, Colo.... 196
Eldredge, J. B..... 224
Electric Accumulator Plant..... 609
Electric Accumulator, Prescetto's Pat 673
Electric Battery, Bugg's Pat..... 762
Electric Battery, Emanuel's Pat. 763
Electric Battery, Koenig's Pat.... 643
Electric Battery, Maas' Pat..... 762
Electric Companies, France..... 175
Electric Conductivity of Metals... 333
Electric Connection, Cleveland's Pat 732
Electric Copper Company's Pat. Electro-Depositing Metals 193
*Electric Drill, Casler's Pat..... 222
*Electric Drill, Holmes' Pat..... 73
*Electric Furnace, Bresson's Pat. 583
*Electric Furnace, Pignotti, Lori, Regnoli, Besso and Pantaleoni's Pat 433
Electric Furnace, Stassano's Pat. 703
Electric Fuse, Betterman's Pat... 523
Electric Generator, Bradley's Pat 793
Electric Generator, Green's Pat... 643
Electric Haulage Plant, Germany 605
Electric Insulation Tube..... 222
Electric Lamp, Portable, Bugg's Pat 673
Electric Lighting, Moore's Pat.... 643
*Electric Light, Nernst..... 700
*Electric Locomotive, Jeffrey..... 731
*Electric Metal Heater, Burton's Pat 733
*Electric Metal Tempering, Burton's Pat 732
Electric Meter, Gutmann's Pat... 673
Electric Mine Signals.....639, 693
Electric Motors for Shop and Mine 636
*Electric Ore Separator, Burton's Pat 732
Electric Power, Long Distance Transmission 792
*Electric Power Plant, Canyon Ci ', Colo 700
Electric Power Plant in the Transvaal 664
Electric Power Transmission, Bradley's Pat 792
Electric Power Transmission in Italy 754
*Electric Rock Drill, Meissner... 759
Electric Smelting at Sault Ste. Marie 37
Electric Street Railroads in Europe 307
Electric Transmission and Water Power 602
Electric Underground Conduit, Sewall's Pat 733
*Electric Welding, Hirsch's Pat. 72
Electric Work, Aluminum Conductors for 453
*Electrically Heated Roll, Snow's Pat 133
Electrical Resistance of Metal Plates 244
Electricity, Aluminum Conductors for 331
"Electro-Chemical Year-Book"....183
"Electrochemists, Calendar for".. 513
Electro-Cyanide Process, Pelet an's Pat 253
Electrodepositing Metals, Electric Copper Company's Pat..... 193
*Electrode, Wilkinson's Pat..... 223
Electrolysis of Metallic Chloride, Hilberg's Pat 763
Electrolysis of Pipes.....631, 756
*Electrolytic Apparatus, Rhodin's Pat 222
Electrolytic Apparatus, Thum's Pat 703
Electrolytic Bath, Marino's Pat.. 163
Electrolytic Chlorate Works, St. Michael Plant 730
Electrolytic Copper Refining, Cost of 481
Electrolytic Copper Refining in 1897 6
Electrolytic Copper Refining, Improvements 1
Electrolytic Deposition of Copper, Dumoulin's Pat 763
Electrolytic Determination of Zinc 424
Electrolytic Diaphragm, Langguth's Pat 703
Electrolytic Diaphragm, Luxton's Pat 313
Electrolytic Marine Salts Co...122, 124, 151, 154, 197, 242, 257, 287, 467, 581, 766
Electrolytic Metal Separation, Linde's Pat 523
Electrolytic Process, Hargreaves-Bird 31
Electrolytic Process, Richards & Roeper's Pat 193
Electrolytic Separation of Nickel, Linde's Pat 613
Electrolyzing Sea Water, Baldo's Pat 522
Electro-Motor, Cantono's Pat..... 703
*Electro Plating Apparatus, Boissier's Pat 433
Electro-Plating, Hartley's Pat.... 792
*Electro Plating Plant, Arrangement of 59
"Elektrotechnik, Fortschritte der" 543
Element, New 304
Elgan-Smith Mg. Co., Colo..... 136
Elgin Mg. Co., Utah..... 768
Elguera, Manuel 74
Elizabeth Lead Co., Mo..... 797
Elizabeth Mg. Co., Pa..... 440
Elizabeth Mg. Co., Vt..... 469
Elizabethtown District, N. M..... 708
Elk Fork Oil & Gas Co., W. Va... 589
Elk Lease, Colo..... 166
Elk Mg. Co., Mo..... 797
Elkhart Mine, Ariz..... 165
Elkhorn Camp, Mont..... 47
Elkhorn Mg. Co., Oregon..... 228
Elkins' Pat. Hydrocarbon Burner 703
Elkton Con. Mg. & Milling Co., Colo 106, 226, 556, 585, 736
Ella Mine, Colo 226
Ella Mine, Mont.....378, 738
Ellen McGregor Mine, Colo..... 15
Ellershausen Zinc-Lead Sulphide Process 364
Ellis, George H..... 554
Ellis' Pat. Tube Making..... 582
Elm City Mg. Co., Alaska..... 555
Elmgren's Pat. Dinner Pail..... 733
El Oro District, Mexico..... 559
El Oro Mine, Mexico.....49, 440
El Plomo Mg. Co., Mexico..... 140
Elsby, Frank 434
Ely Copper Mine, Vt..... 469
Ely Mg. Co., Nev..... 587
Emanuel's Pat. Electric Battery. 763
*Embleton's Pat. Stamp Mill..... 492
Emerald Mg. Co., Utah.....78, 229
Emeralds 252
*Emery Cloth Making, Edward's Pat 343
Emery, Louis, Jr..... 764
Emery, Naxos 34
Emery, Turkey 636
Emily Dessia Mine, Cal..... 105
Emma Mine, Colo..... 616
Emmerick's Pat. Bronzing Machine 612
Emmet Con. Group, Mont..... 767
Emperor Mine, Ontario 319
Empire Chemical Co., N. J..... 434
Empire City Mg. Co., Colo.....45, 585
Empire Colliery, Pa..... 468
Empire Mine, Cal.....496, 555, 645
Empire Mine, Idaho.....16, 796
Empire Mine, Wyo..... 139
Empire State, Idaho Mg. & Development Co 197
Empire Zinc Co., Kas..... 677
Empire Zinc Sm. & Mg. Co., Mo.. 647
Employee, Negligence 401
Employee Responsibility for Wrongful Act 371, 401
Employer Responsibility for Employee 371
Encondita Mine, Mexico 470
*Engine, Diesel Heat 10
*Engine, Willans Central Valve.. 395
Engineering and Alkali Works.... 11
"Engineering Education, Promotion Society, Proceedings" ..183, 663
Engineering Education Society.44, 284
"Engineer," London, on American Steel Exports 272, 274
"Engineering and Mining Journal" Index 1
England, Beam Process in..... 91
England, By-Product Coke Ovens in 454
England, Surface Caving in..... 724
Engledue, W. T., New Fire-Proof Cement 274
English and American Machines in Germany 574
"English, German, Spanish, French Dictionary of Mining Terms" 663
English Government Orders for Coal 560
English Smelters, Copper Charges 481
*English's Pat. Gas Producer..... 313
Ensley, Ala., Wire Mill..... 584
Enterprise Coal Co., Pa..... 708
Enterprise Machine Works, Colo. 764
Enterprise Mine, Cal 375
Enterprise Mine, Colo.....75, 196
Enzinger's Pat. Filter Plate Manufacture 13
"Erie County, New York, Geology" 33
Escanaba Copper Mg. Co., Mich. 497, 617
Escombrera-Bleyburg Lead Co., Spain 445
Esmeralda Mine, Cal 15
Esmeralda Mine, Colo 315
Esmeralda Mine, S. Dak.....229, 798
Esperanza Gold Mining Co., Mexico 20
Esperanza Mine, Cal 405
Esler, A. M..... 74
Esser, John S..... 584
Estrella Mine, Cal 45
*Etherion, New Gas 549
Ethiopia, Mines of 250
Etter's Pat. Dephosphorizing Iron 732
Etzold Coal Mine, Mich.....377, 467
Euclid Avenue Group, Colo..... 346
Eureka Con. Mg. Co., Nev..... 527
Eureka District Mg. Co., Wash... 679
Eureka & Excelsior Mine, Oregon 228, 528
Eureka Hill Mg. Co., Utah....289, 348
Eureka Mill, Cal 165
Eureka Mine, Colo 376
Eureka Mine, Oregon 437
Eureka Mg. Co., Cal.....255, 435, 645
Eureka Pacific Mining Co., Idaho 647
Eureka Queen Mine, Wash....619, 679
Eureka Red Slate Co., Ark..... 75
Eureka Swansea Extension Mining Co., Utah..... 799
European Federation 415
Europe, Calcium Carbide in..... 666
Europe, Electric Street Railroads 307
Europe, Iron Ore Supplies..... 722
Eva May Mine, Mont..... 797
Eva May Mine, Utah..... 133
Evans, Charles, "Report of State Mine Inspector, Missouri" 633
Evans, George H.....74, 794
Evans Gulch, Colo 196
Evaporator, Brigham's Pat 732
Eveleth Town site, Minn.....137, 707
Evening Star Mine, B. C..... 529
Evening Star Mine, Colo.....76, 677
Everett & Monte Cristo Railroad, Wash 349
Everett Smelter, Wash 260
Ewell, E. E., "Fertilizing Values of Street Sweepings" 483
*Excavating and Conveying Apparatus, Lancaster Pat 12
Excavator, Miller's Pat 312
Excavator, Wright's Pat 493
Excelsior Mine, Cal.....556, 736
Excelsior Slate Co., Pa 648
Exchequer Mg. Co., Nev 527
Exeter Mg. Co., Utah..... 229
Expert Evidence 310
Exploration Co., B. C..... 710
Explosive, Beneke's Pat 222
"Explosives in Belgian Coal Mines" 693
Explosives in British Coal Mine...161
Explosives, Influence of Temperature on 454
"Explosives, Lectures on" 663
Exports of Manufactures.....61, 242
Export Trade and the Consular Service 781

F

Fade, Louis 74, 164
Fairbanks Co., N. Y..... 675
*Fairbanks-Morse Gasoline Engine and Air Compressor..... 311
Fairchild Chemical Laboratory Co., Mo 764
Fairmount Zinc Co., Ind..... 764
Fairview Mg. Co., Mo..... 167
Famous Mg. Co., Colo..... 256
Fanny Rawlings Mg. Co., Colo 346, 376, 646, 677
Farrell Foundry & Machine Co., Conn 465
Farrish, W. B..... 164
Farwell, L. Z..... 194
Farwell, R. K..... 314
Father Lode, Idaho 406
Faure, C. A..... 584
Faust Group, S. Dak..... 528
Faust Mill, S. Dak.....468, 498
Faust & May Mine, S. Dak..... 679
Faust Mine, S. Dak..... 18
Fayal Iron Co., Minn.....17, 137, 526, 647, 707
Fay & Egan Co., Ohio..... 164
Fayel, J. J.....524, 554
Fayette Gas Fuel Co., Pa..... 678
Fearn, Percy L..... 314
Feather River Dredging, Cal..... 195
Federal Steel Coal and New Properties 772
Federal Steel Co.....242, 321, 331, 344, 351, 465, 495, 594, 712
Federated Canadian Mining Institute "Journal, 1897" 332
Fellowcraft Mine, Cal 375
Fellows, Alfred 674
Fellow Servants in Mining 221
*Ferguson's Pat. Dynamite Cartridge Cap 343
Fern Mine, B. C.....469, 559
Ferrier, W. F..... 764
*Ferron's Pat. Oil Burner..... 583
Ferro-Tungsten, Analysis of..... 607
Fertilizer, Basic Slag as.....124, 457
Fertilizers in Hawaii 624
Ferris' Pat. Mixing Machine 552
Fertilizing Chemicals..... Weekly
Fertilizer Exports, Great Britain 384
Feustman, Leon P..... 434
Fidler, T. Claxton, "Calculations in Hydraulic Engineering" 93
Field, Eugene, Memorial..... 661
Fifteen-Mile Stream District, N. S 350
*Figaniere's Pat. Brominating Apparatus 553
*Figaniere's Pat. Desulphurizing Apparatus 553
Filer & Stowell Co., Wis..... 195
Filer, W. G..... 464
Filter Frame, Proks' Pat..... 193
*Filter, Fryer's Pat 73
Filter Plate Manufacture, Enzinger's Pat 13
*Filter Plate, Proks' Pat..... 193
Filter Presses for Reduction Works 160
Filter Press, Hendrick's Pat..... 522
*Filter Press Treatment of Gold Ore Slimes 787
Findlay Iron Mine, Pa..... 168
Findley Gold Mg. Co., Colo..136, 616, 736
Finerty's Pat. Stone Cleaning Composition 103
Finished Steel Co., Ohio..... 14
Fire Brick Trust 524
Fire Clay as an Abrasive..... 668
Fire Clay, Determining Resistance 485
Fire Losses and Slow Burning Mill Construction 212
Fire Proof Cement, New..... 274
Fires and Mill Construction 692
Firminy Steel Co., France..... 415
Firmstone, Frank, Form of Blast Furnace Charges 546
First National Kansas Mine, Colo 46
First Shot Mine, Mont.....737, 767
First Shot Mine, Utah..... 138

Fischer, George K..... 344
Fisher & Boom Mine, Idaho..... 796
Fish Mine, Colo 736
Fiske, W. D..... 134
Fisk Gold Mg. Co., Colo..226, 436, 466, 526
Fitzgerald, Speer & Co., Slate Quarry, Pa 229
Fives-Lille Company, France..... 625
Fladd, Henry 14
Flanagan-Jefferson Mine, Colo.... 766
Fleck, W. I., Placer Mining Pump 543
Fleming Mine, Cal 75
Flemington Coal & Coke Co., W. Va 224, 285
*Flexible Metallic Pipe, Levavasseur's Pat 13
Florence Iron River Co., Mich.... 677
Florence Mine, Mich 737
Florence Mg. Co., Mont..... 198
Florida Mountain Mg. & Milling Co., Idaho 796
Florida Phosphate Exports....294, 742
Florida Phosphate Shipments..16, 144, 204, 564, 624, 711
*Flume, Basic Company's, Idaho. 455
Fluorine Mine, Colo 196
Fluorspar 12, 342, 552
Flynn Mine, Idaho 47
*Fogarty's Pat. Cyanide Making.. 762
Forced Draft for Steam Boilers.. 243
Ford Mine, Cal 525
Ford, Tirey L..... 284
Ford, Worthington C..... 164
Foreign Coins .....Weekly
Foreign Manufacturers in the U. S 661
Foreigners, Mineral Rights in Russia 241
Forest Hill Con. Mg. Co., Colo.... 556
Forest Mining and Milling Co., Colo 705
Forest Queen Mg. Co., Colo.46, 76, 346
*Forging Machine, Burdict's Pat. 552
Formes, H. C..... 74
Forsythe Mine, Utah..... 48
Fort Payne Mfg. Co., Ala..... 81
Fort Payne Rolling Mill, Ala..... 554
Fort Steele Mining Locations, B.C. 740
Fortuna Gold Mg. Co., Mexico... 745
Fortuna Mine, Ariz..... 555
Fortune Mine, Colo.....76, 197
Fortune Mine, Mont..... 198
Fortune Mine, Utah..... 438
Forty-Five Con. Mg. Co., Wash.. 349
Forward & Davidson's Pat. Asphalt from Crude Petroleum.... 493
Foster, C. Le Neve, "Mines and Quarries of United Kingdom". 333
Four Aces Mg. Co., Utah.....528, 558
Four Hills Mine, Cal..... 405
Four Mile Creek Cyanide Plant, Colo 436
Four Mile Placer Mg. Co., Wyo.. 48
Fourth of July Mine, Colo..... 346
Fourth of July Mg. Co., Mont.... 78
Fowler, Sir John..... 704
Fox's Pat. Aluminum Alloy..... 763
*Fox's Pat. Gold Separator..... 733
Fox Squirrel Mine, Mo..... 77
France, American Coal for..... 726
France, Calcium Carbide in..... 333
France. Coal Production.....295, 535
France, Duty on Spanish Lead... 204
France, Foreign Trade..25, 145, 295, 415, 535, 595, 685, 805
France, Gold and Silver Movement.....145, 385, 445, 505, 625, 775
France, Iron Ore..... 295
France, Iron and Steel Production 535
France, Joint Stock Companies.. 535
France, Money in Circulation..... 415
France, New Iron Ore Supply... 385
France, Nickel Coinage..... 11
France, Tramways 145
France, "Yearbook for the Society of Encouragement of the National Industry"..... 62
Frank, J. B.....374, 404
Frank Kneeland Machine Co., Pa. 254
Franklin Institute.....614, 674, 764
Franklin Mine, Wyo.....139, 409
Franklin Mg. Co., Mich....16, 76, 137, 227, 376, 706
Franklin Mg. Co., Minn..497, 526, 557
Fraser & Chalmers..... 285
*Fraser & Chalmers' Crushing Rolls 401
Fraud in Sale of Mine..... 550
Fraudulent Entry of Mining Claim 696
Frazer, Persifor, Dr. on James Hall 215
Frazer, Persifor, Kytchtym Medal 518
Free Coinage Mine, Colo..... 75
Free Coinage Mine, Mont.....138, 678
Freedom Gold Mg. Co., Colo..226, 585
Freeland, Francis T.....524, 764
Freeland Mine, Colo..... 585
*Freitag's Pat. Pulverized Fuel Burner 403
Fremont Gold Mg. Co., Mont..... 767
French Bar Mine, Mont..... 797
French Guiana, Gold..200, 380, 500, 573, 620
"French River, Ontario, Geology of" 453
French Steel Works, Cranes in... 515
Frenchel's Pat. Artificial Stone.. 493
Frenzel, A. B.....194, 494
*Frenzel, A. B., Turquoise Deposits, Mohave County, Ariz..... 697
Frick, H. C., Co., Pa.....648, 678, 708
Frigard's Pat. Tramway..... 13
'Frisco Mg. Co., Utah.....289, 499
Fritsch Foundry & Machine Co., Mo. 494
Froenkel, A., Tin Estimation..... 333
Frontier Iron Works, Mich..... 314
Frostburg Mine, Colo..... 376
*Frozen Earth Excavating, Tuck's Pat. 582
*Frozen Ground Working, Haycock's Pat. 343
Frue & Norton Mine, Cal..... 436
*Fryer's Pat. Filter..... 73
Fuel, Artificial, Strong's Pat.... 163
Fuel at Caylloma Mines, Peru.... 727
Fuel Economizer Co., N. Y..... 164
Fuller's Earth, California.....135, 676
Fuller, Willard 614
Fulton Chemical Co., Ga..... 314
Fulton, C. J..... 674
Furman, H. Van F..... 764
Furnace Charger, Tomkins' Pat.. 163
*Furnace, Stover, Martin & Eaton's Pat..... 643
*Furnace, Stubblebine's Pat....73, 283
*Furnace Wall Cooling, Gaines' Pat 673
Fusibility of Clay..... 485

Gafsa Phosphate Co., Tunis..175, 349, 415, 505
Gage, Lyman J..... 464
Gagnon Mine, Mont.....18, 288
*Gaines' Pat. Furnace Wall Cooling..... 673
Gale, John D..... 434
Galena Mine, Colo..... 676
Galena Mg. Co., Utah.....18, 109
*Gale's Pat. Pump Valve..... 192
*Gale's Pat. Retort Burner..... 702
Gallinowski's Pat. Cement Making 13
Gallinowski's Pat. Protecting Piles 582
Galloway Coal Mine, Ala..... 410
Galt, T. P..... 284
Galvanic Batteries, Richmond's Pat 703
Galvanized Iron in Japan..... 614
Galvan, Serapio 14
Gambetta Mine Colo..... 106
Gang & Co., O..... 74
Ganzel's Pat. Chimney..... 373
Garbutt Mine, Colo.....467, 646
Garden City Cyanide Plant, S. Dak.....438, 588, 679, 798
Garden City District, S. Dak..259, 318
Garden City Mine, Colo..... 406
Garfield Con. Mg. Co., Colo..... 166
*Garforth's Pat. Coal Cutter..... 643
Garland's Pat. Pipe Finishing.... 493
Garnet District, Mont..... 707
Garnet Gold Mg. Co., Mont..... 647
Garrison, F. Lloyd..... 164
Garroway's Pat. White Lead Making 553
Gary, E. H..... 464
*Gas Analysis Apparatus, Bleir's Pat. 43
Gas from Anthracite Coal..... 152
Gas Apparatus, Broechgan's Pat. 102
*Gas Collecting and Purifying, Schneible's Pat. 433
Gas Companies' Consolidation in Pittsburg 795
*Gas Compressor, Wright's Pat.. 402
Gas Engine and Blast Furnaces, 361, 368
Gas Engines in German Cities... 461
Gas Engine, Noiseless..... 42
Gas Explosion, Damages for..... 277
*Gas Furnace, Bond's Pat..... 643
*Gas Furnace for the Laboratory 581
*Gas Generator, Keller's Pat..... 463
*Gas Heating Apparatus, Henderson's Pa..... 102
*Gas, Illuminating from By-Product Coke Ovens.....428, 458
Gas Lease in West Virginia..... 310
Gas Making, Boys' Pat..... 763
Gas Making, Harris' Pat..... 312
Gas Making, Hastings' Pat..... 763
Gas Making, Lee, Elliott & Tatham's Pat. 673
*Gas Making from Oil, Martinette's Pat. 433
Gas Manufacture, Slocum's Pat. 552
Gas Manufacture, Stevens' Pat.. 673
Gas and Oil Leases.....9, 310
"Gas and Petroleum Motors"..... 663
Gas Poisoning, Compressed Oxygen for 451
Gas Power for Witwatersrand.... 372
*Gas Producer, English's Pat..... 313
Gas Producer, Hastings' Pat..... 763
*Gas Producer, Humfrey's Pat.. 523
Gas Producer, Lewes' Pat..... 793
*Gas Producer, Sanderson's Pat.. 313
*Gas Separation from Oil, Losure's Pat. 283
*Gas Turbine, Lundell's Pat..... 642
Gas Well Law, Indiana..... 130
*Gasoline Engine, Air Compressor 311
*Gasoline Hoisting Engine, Weber 791
*Gasoline Hoisting Engine, Witte 131
Gasoline Supply in Mexico..... 440
Gaston Mine Co., Colo.....226, 616, 796
Gates Iron Works, Ill.....134, 585, 675
Gates, John W..... 734
*Gates' Pat. Crusher Frame..... 223
*Gates' Pat. Stamp Mill Feeder... 312
Gause, John T..... 734
Gavilan Mine, Cal..... 765
Gay, Joseph E..... 554
*Gay's Pat. Hydraulic Blasting... 523
*Gay's Pat. Riffle..... 793
G. & B. Mine, Mont.....47, 228
Geddes, Theron 344, 554
Geelong Mine, Rhodesia..... 679
Geiger Mine, Colo..... 406
Geldenhuis Deep Gold Mg. Co., Transvaal 379
Gem Chemical Co., Md..... 74
Gem Mg. Co., Colo..... 225
Gem Valley Mg. Co., Mo..... 797
General Electric Co....44, 224, 344, 405, 525, 614, 795
General Phosphate Co., Tenn..... 528
Genesee Valley Mine, Cal..... 375
Geneva Mine, Colo..... 436
Genoa Iron Co., Minn.....137, 167
Geological Survey of Canada "Bulletin" 453
Geological Survey of Natal..... 730
"Geological Survey of New Jersey, Report".....393, 603
"Geological Survey, New York, Bulletins" 33
Geological Survey of New Zealand 457
"Geological Survey, North Carolina, Bulletins" 62
"Geological Survey, U. S. Atlas Folios" 62
"Geology of Southwest Nova Scotia" 483
Georgetown Syndicate, Colo..... 225
Georgia & Alabama Mg. Co., Ala. 255
Georgia Bauxite Exports..... 391
"Georgia, Preliminary Report on the Gold Deposits" 753
*Georgia Stamp Mill, Old Time... 789
German Bar Placer Mg. Co., Mont. 618, 737
German Commercial Bureau..... 342
German East Africa, Gold..... 361
German East Africa, Minerals.... 453
*German Hand Drill..... 609
German Iron Works, Profits..... 612
German Mine, Colo..... 496
German Operations in China..... 131
Germania Iron Co., Minn..... 497
Germany, Accidents in Iron and Steel Works 34
Germany, American Iron and Steel in.....335, 721
Germany, American Steel Pipe in 541
Germany, Calcium Carbide..... 95
Germany, Coal Miners' Wages, 422, 551
Germany, Coal Trade..... 580
Germany, Coal Washing Plant... 544
Germany, Commercial Enterprise 331
Germany, Cost of Coal and Coke 697
Germany, Cyanide Manufacture, 454, 579
Germany, Eastern, Petroleum in. 41
Germany, Electric Haulage Plant 605
Germany, Gas Engines in..... 461
Germany, Iron Ore Trade..... 728
Germany, Iron Production.....64, 364, 551, 574, 726
Germany, Monetary Crisis..... 744
Germany, Peat 634
*Gerrymander Mg. Co., Cal..... 75
Gesellschaft fur Chemische Industrie, Switzerland 675
Get There Lease, Mo..... 317
Gettysburg Mine, Idaho..... 406
Geyser-Marion Mg. Co., Utah..265, 559, 745, 769
Geyser Mine, Colo..... 585
Giant Mine, B. C..... 409
Gibbs Mill, S. Dak..... 48
Gibson, Charles D..... 254
Gibson, J. B..... 254
Gilchrist Coal Mines, W. Va..... 19
Giles Mine, Colo..... 136
Gillis, Donald B..... 434
Gilman's Pat. Conveyor..... 283
Gilpin County Mines, Colo..... 556
Gilpin County Mining Deals, Colo. 766
Gilpin County Ore Shipments, Colo. 736
Gilpin County Placer Mining, Colo. 106
Gilpin, E., Jr., "Nova Scotia Ores" 332
Gilpin & Nugget Mg. Co., Colo... 346
Gilpin Tramway Co., Colo.....136, 496, 796
Gilson, S. H..... 254
Gilt Edge Mine, Mont.....317, 347, 407
Gilt Edge Mg., Milling & Sm. Co., S. Dak....18, 78, 259, 618, 679, 768, 798
Girard, M. B..... 644
Girard, W. B..... 494
Gisholt Machine Co., Wis..... 194
Gjers, John..... 524
Gladstone Mine, Cal.....105, 765
Gladstone Mg. Co., Mexico..... 145
Glasgow, American Iron Pipe for 461
Glasgow, Bruce M..... 524
Glasgow & Western Exploration Co., Nev. 587
Glass as a Flux..... 492
Glass, Light Through..... 306
Glass Manufacture, Van Fleet's Pat. 103
Glass Sand in Belgium..... 581
Glencoe Mg. Co., Utah.....229, 259, 529
Globe Dry Kiln Mfg. Co., Ala..... 51
Globe, Gigantic 281
Globe Gold Mg. Co., Ariz..... 75
Globe Hard Vein Slate Co., Pa., 618, 678
Globe Refining Co., Ky..... 74
Glouster Coal Mine, O..... 318
*Glover's Pat. Prospecting Tool.. 673
Glucinum 492
Glyza Chemical Co..... 404
Godbe, S..... 134
Godfrey & Tabor Mine, Oregon... 318
Godiva Mine, Utah.....109, 199
Gogebic Iron Range Labor Conditions, Mich 137
Golconda Mine, Nevada..... 407
Golconda Mine, Oregon..... 528
Golconda Mg. & Tunnel Co., Colo. 45
Gold, Assay and Cyanide Liquors 788
Gold Bar & O. K. Con. Mines, Cal. 585
Gold-Bearing Lodes, Genesis of.. 485
Gold Belt Railroad, Colo..436, 526, 616
Gold Belt Water Co., Utah..... 739
Gold Bluff Mine, Cal.....15, 45, 496, 736
Gold, British Guiana..200, 380, 500, 620
Gold Bug Mine, Colo..... 225
Gold Bug Mine, Oregon.....138, 347
Gold, China 139
Gold in Circulation.....263, 803
Gold Coin Mine, Mont..... 797
Gold Coin Mines Co., Colo..... 796
Gold Coin Mining and Leasing Co., Colo.....136, 495, 705
Gold Collar Mine, Colo.....196, 736
Gold in Colorado, First Discovery 361
Gold Discoveries, Ohio..... 767
Gold Discovery Co., Colo..... 556
Gold Discovery, Malvern, Ohio... 527
*Gold Dredge Boat, Hammond.... 155
*Gold Dredges in New Zealand.. 637
*Gold Dredges, Recent..... 728
Gold Dredging in Australia..... 155
"Gold Dredging in New South Wales" 513
Gold Depositing on Aluminum... 93
Gold Dredging, New Zealand..... 79
"Gold Dredging in New Zealand, Report on" 573
Gold Dredging in Wales..... 42
Gold Dust Mg. Co., Utah.....19, 769
Gold, Dutch Guiana....200, 380, 500, 620
Gold in the Eastern States..... 432
Gold Excitement Group, Colo.... 166
Gold Exports, British Guiana..... 320
Gold Exports and Imports....Weekly
Gold Exports, New Zealand..169, 740, 769
Gold Exports, Western Australia, 289, 349
*Gold Extraction from Ores, Hinman's Pat. 493
Gold Extraction from Ores, Sulman & Teed's Pat. 403
Gold Field, Indiana..... 572
*Gold Fields of Guiana..... 97
Gold, French Guiana..200, 380, 500, 620
"Gold in French Guiana"..... 573
Gold in German East Africa..361, 453
Gold Harvest Mine, Wash..... 679
Gold Hill District, Colo..... 166
Gold Hill Mg. Co., Cal..... 555
Gold Hill Mg. Co., S. Dak.....378, 679, 738
Gold Hill Tunnel & Mg. Co., Colo. 226
Gold Imports.....293, 352, 382, 684, 713
Gold Imports from Australia..... 533
Gold, India..... 302
Gold King Con. Mg. Co., Colo.... 227
Gold King Mine, Colo.....316, 677, 796
Gold Knob Mg. Co., Colo..... 15
Gold Leaf Mine, Wash..... 169
Gold Losses in Smelting Cyanide Slimes 790
Gold Medal for "Mineral Industry" 31
*Gold Mill, Hadley, New York.... 275
Gold Milling 432
Gold Mines, Mashonaland..... 475
Gold Mines in Ohio..... 631
Gold Mines, Queensland..... 244
Gold Mines, Southern Russia..... 548
Gold Mining in California..... 421
Gold Mining in China..... 364
*Gold Mining Dredge, Crow's Pat. 553
Gold Mining in Hastings County, Ontario 668
Gold Mining in Manchuria..... 391
Gold Mining in Nicaragua..... 513
"Gold Mining in North Carolina," 62, 273
Gold Mining in Northern China... 513
Gold Mining Royalties..... 102
Gold Mining District, Utah.....78, 588
Gold Mountain Mg. Co., Mont...17, 108, 228, 347, 557
Gold Mountain-Sevier Road, Utah 19
Gold Movement, France..145, 385, 445, 505, 625, 775
Gold Movement, Great Britain, 23, 113, 263, 533, 774
"Gold in Nature"..... 363
*Gold in Nicaragua..... 125
Gold Note Mine, Ariz..... 165
Gold Note Mine, Cal..... 165
Gold Nugget Mine, Colo..... 76
Gold Nugget Mg. Co., Mont..... 77
"Gold Nuggets, Historical"..... 153
Gold, Ontario 335, 581
Gold Ore Mg. Co., Mont.....407, 437
*Gold Ore Slimes, Filter Press Treatment 787
Gold Ore Treatment, Edwards' Pat. 253
*Gold Ore Treatment in the Hauraki Peninsula, New Zealand... 575
Gold Ore Treatment, James & Jordan's Pat. 102
*Gold Ore Treatment, Jordan's Pat. 643
Gold Ore Treatment, Weatherwax's Pat. 253, 613
Gold Ores, Low Grade..... 432
Gold Ores, Mining and Milling in Western Australia 725
Gold Output, Klondike..... 109
Gold Output, Witwatersrand..499, 529
*Gold Placers, Oural Mountains, Russia 305
Gold Process, Permanganate..... 192
Gold Production in Bokhara and Turkestan 398
Gold Production, British Guiana.. 800
Gold Production, Cripple Creek, Colo. 106, 705, 736
Gold Production, India..... 649
Gold Production, New Zealand, 289, 439
Gold Production, Nova Scotia..... 319
Gold Production, Queensland..109, 230, 379, 499, 529, 619, 769
Gold Production, Rhodesia, Africa 709, 769
Gold Production, Transvaal....211, 230, 631, 769
Gold Production, Uruguay..... 290
Gold Production, Victoria.....499, 649
Gold Production, Western Australia 109, 469, 649
Gold Production, Witwatersrand, 139, 260, 379, 409, 649
Gold Production of the World..... 752
Gold, Proof, Preparing..... 36
Gold Prospecting in Cuba..... 710

Gold Prospecting in New Guinea. 216
"Gold in Quebec".....303, 633
Gold Receipts, Yukon..... 200
Gold Recovery from Cyanide Solutions 160
*Gold Recovery from Solutions, Pack's Pat..... 103
Gold Recovery from Solution, Waldstein's Pat..... 163
Gold Reef District, Mont..... 77
Gold Rock Mine, Colo..... 406
Gold Run Mg. & Ditch Co., Cal.. 705
*Gold Saving, Morton's Pat..... 373
Gold Sea-Sand, Adirondack..... 363
Gold from Sea Water.....151, 154, 242
*Gold from Sea Water, Accumulator 581
Gold from Sea Water or Stockholders 122, 124
*Gold Separator, Fox's Pat..... 733
*Gold Separator, Gray's Pat..... 312
*Gold Separator, Harris' Pat..... 583
Gold Shipments, Klondike..... 211
Gold Shipments, Yukon..... 290
Gold and Silver in India.....302, 602
Gold and Silver Mines..... 492
Gold Slimes Treatment, Denny's Pat. 13
Gold Sovereign Mine, Colo.....136, 286
Gold Stealing, Prevention, Ball's Pat. 763
Gold, Tasmania 499, 649
Gold in Tibet..... 372
Gold Treasure Mg. Co., Utah.... 318
Gold, Turkey 635
*Gold Washer, Beckley-Robinson 521
*Gold Washer, Chick's Pat..... 613
*Gold Washer, Grime's Pat..... 522
Golden Age Mine, Colo..... 346
Golden Cache Mg. Co., B. C...200, 409, 649, 679, 799
Golden Circle Railroad, Colo..... 616
*Golden Circle Railroad, Cripple Creek, Colo. 339
Golden Crest Mine, S. Dak....229, 528
Golden Cross Mine, Cal....225, 525, 615
Golden Cycle Gold Mg. Co., Colo. 106
Golden Eagle Mine, Cal..165, 436, 676
Golden Eagle Mine, Nev..... 798
Golden Eagle Mg. Co., Colo...226, 496
Golden Fleece Mine, Colo..... 226
Golden Fleece Mine, Idaho..... 406
Golden Frolic Mine, B. C..... 230
Golden Gate Cyanide Plant, S. Dak. 558
Golden Gate Mine, Mont..... 767
Golden Gate Sulphuret Mg. Co., Cal. 75
Golden Giant Mine, Oregon..... 618
Golden Goose Mine, Wash..... 739
Golden Group Co., N. S..... 769
Golden Harvest Mine, Wash..439, 589, 709, 739
Golden Horn Mine, Ontario..... 20
Golden Klondike River, Ltd..... 595
Golden Lamp Mg. Co., Colo..... 145
Golden Return Mg. Co., S. Dak., 348, 528
Golden Reward Mg. Co., S. Dak. 108
Golden River Quesnelle Co., B. C. 230, 679
Golden Rule Mine, Cal..... 436
Golden Rule Slate Quarry, Pa.... 798
Golden Sands Mine, S. Dak..... 558
Golden Sceptre Mine, Colo..... 676
Golden Slipper Mine, S. Dak..... 138
Golden Star Mine, Cal..... 436
Golden Star Mine, Ont..... 319
Golden Star Mg. Co., Utah..... 289
Golden Star Mining and Milling Co., Idaho 107
Golden Treasure Mine, Colo...226, 526
Golden West Mine, Cal.....15, 645
Goldenville District, N. S...19, 139, 350
"Goldfelder Australasiens" 2
Goldman, Henry, "Arithmachinist" 243, 512
Gonzales Canyon Coal Co., Colo.. 76
Good Enough Mine, Idaho..... 736
Good Hope Mine, Cal..... 225
Good's Pat. Drop-Hammer..... 12
Goodspeed, A..... 14
Goodspeed Mg. Co., Utah..... 799
Gopher Gold Mg. Co., Cal..... 225
Gordon-James Mine, Ont..... 379
Gordon, J. G..... 614
Gordon's Pat. Steel Dephosphorizing 283
Goubert Mfg. Co., N. Y..... 465
Gould & Curry Mg. Co., Nev..... 798
Gould Mg. Co., Colo..... 685
Goulds Mfg. Co., N. Y.....495, 555
Gouyard, G. M..... 674
Gover Mine, Cal..... 525
Grabowski Mill, Colo..... 316
Gracey Woodward Iron Co., Tenn. 285, 615
Graeff, John E..... 644
*Graig's Pat. Pump..... 222
Grand Canyon Placer Mg. Co..... 252
Grand Central Mine, Mo..... 167
Grand Central Mining Co., Mexico, Report 698
Grand Central Mg. Co., Utah..139, 199, 348, 739
Grand Central Slate Co., Pa..199, 288, 738
Grand County Mine, Colo..... 766
Grand Encampment District, Wyo. 79
Grand Encampment Mg. Co., Wyo. 200
Grand Rapids Alabastine Co., Mich. 16
Grand Rapids Plaster Beds, Mich. 16
Grand Victory Mine, Cal..... 135
Granite Bimetallic Mg. Co., Mont., 198, 228, 257, 288, 377, 498
Granite Hill Mine, Cal.....225, 495
Granite Mg. Co., Idaho..... 406
Granite Mountain Mine, Colo..... 646
Grant County Placer Mining, Ore. 708
Grant Mg. Co., B. C..... 169
Grant, R. D..... 704
Graphite 132
Graphite Deposit, S. Dak..... 408
Graphite Mines, Wyo..... 589
Grass Valley Exploration Co., Cal. 615
Grass Valley Miners' Union, Cal. 135
*Gravel Washer, Barnett's Pat.... 792
Graves, A. 614
Gravity Tramways..... 582
Gray Eagle Mine, Mont..... 138
Gray Rooster Mine, Utah..... 499
*Gray's Pat. Gold Separator..... 312
*Gray's Pat. Sizing Machine..... 163
Great Bonanza Mine, Oregon..... 78
Great Boulder Mg. Co., W. Australia 559
"Great Britain, Alkali Inspectors' Report" 123, 363
Great Britain, American Iron and Steel in..... 274
Great Britain, American Locomotives in 486
Great Britain, Bessemer Steel.... 311
Great Britain, Cement Trade..... 547
Great Britain, Coal Exports....97, 247, 372, 514. 671. 760
Great Britain, Copper Imports.114, 263, 383, 534
Great Britain, Fertilizer Exports 384
Great Britain, Foreign Trade..23, 113, 263, 383, 774
Great Britain, Gold and Silver Movement.....23, 113, 263, 533, 774
Great Britain, Iron and Steel Exports 246
Great Britain, Iron Trade, American Competition in..... 451
Great Britain, Labor in Slate Quarries 454
Great Britain, Lead Imports..114, 264, 383, 534
Great Britain, Metal Imports..... 774
Great Britain, Metric System..... 421
Great Britain, Mineral Discoveries 34
Great Britain, Mining Labor Accidents 518
Great Britain, Open-Hearth Steel 281
"Great Britain, Personal Directory" 543
Great Britain, Pyrites Imports... 384
Great Britain, Quicksilver Trade, 114, 264, 384, 534, 774
"Great Britain, Regulation of Coal Output and Prices"..... 603
Great Britain Slate Prices..... 541
Great Britain, Steel Exports to... 272
Great Britain, Sulphur Imports.. 114
Great Britain, Tin Imports....264, 383, 534
Great Britain, Tin-Plate Trade... 548
Great Britain, Zinc Imports...114, 264, 383, 534
Great Eastern Mine, Cal..... 436
Great Eastern Mg. Co., Utah..349, 499
Great Northern Mine, Mont..... 77
Great Northern Mine, S. Dak.... 708
Great Northern Mining Co., Oregon 78, 198, 498
Great Northern Railroad, Coal Contract 201
Great Northern Railroad, Minn... 287
Great Western Coal Co., Iowa.... 287
Great Western Iron Mine, Mich.. 557
Great Western Tin Plate Co., Ill. 614
Greece, Coal 551
"Greece, Foreign Commerce".... 332
Greece, Zinc and Cadmium..... 490
Greenback Combination, Colo..... 526
Greenback Mine, Oregon..228, 288, 437
Green Creek Mg. & Milling Co., Idaho 677
*Greenerd's Pat. Coal Handling Apparatus 282
Greenhead Phosphate Co., Fla... 526
Greenhorn Mine, Cal..... 15
Green Mg. Co., Mo..... 468
Green Mountain Mine, Cal.....45, 105
Green Mountain Mg. Co., B. C.... 409
Green, Raoul, Alaska Mines and Mining 183
Green River Soda Wells, Wyo.... 409
Greensboro Furnace Co., N. C..... 78
Green's Pat. Electric Generator.... 643
*Green's Pat. Oil Well Fishing Tool 733
Greenville Fertilizer Co., S. C.... 44
*Greenway, T. J., Mining and Metallurgical Development at Broken Hill, N. S. W..... 248
Gregory Bobtail Mine, Colo..... 286
Gregory Con. Mines Co., Colo..226, 646
Grenier Placer, Wyo..... 230
Grider Mine, Cal..... 525
Griffith Mg. Co., Colo.....315, 376, 556
Griffith's Pat. Aluminum Hardening 523
Griffith's Pat. Coal Crusher..... 343
Griffiths, William, Anthracite Coal in Peru 514
*Grime's Pat. Gold Washer..... 522
Grizzly Bear Mine, Colo..... 197
Grizzly Mine, Cal..... 556
Grizzly Mine, Utah..... 709
Grizzly Ridge Mg. Co., Cal..... 445
Gross Iron Mine, Minn..... 377
Grossman Mine, Cal..... 195
Ground Hog Mine, Colo.....75, 766
Ground Hog Mine, S. Dak..... 259
Guadaloupe Sulphur Mine, N. M. 378
Guanajuato River Gold Recovery Co., Mex..... 140
Guernsey's Pat. Crane..... 552
Guerrero, Mexico, Prospecting in. 49
Guffey Jennings Mine, N. S..... 649
*Guiana Gold Fields..... 97
Guilleaume's Pat. Flexible Tubes 403
Guinea Pig Directors and the London "Critic" 572
Guker, Ike 104
"Gum-Bichromate Process" 2
Gum Tree Gold Mg. & Milling Co., Colo 615
Gunboat Mine, Ariz..... 345
Gunnison Mine, S. Dak..... 18
Gunpowder Making, Singleton's Pat. 373
Gushwest Group, S. Dak..... 199
Gustorf, Albert 464
Guth, John 44
Gutmann's Pat. Electric Meter.. 673
Gwillim, J. C., West Kootenay Country, B. C..... 573
Gwin Mine, Cal.....645, 765
Gypsey Queen Mine, Cal..... 705
Gypsey Queen Mg. Co., Alaska.. 315
Gypsum 102
Gypsum Mining, Kansas..... 497

H

Hacienda Group, Colo..... 346
Hacke, Count von..... 644
*Hadley Gold Mill, New York..... 275
Haggerty Mine, Wyo..... 739
Haggin, J. B..... 494
Hague, James D..... 74
Haight, C. W..... 404
Haiti Iron Mines..... 483
*Halbert's Pat. Mining Machine. 133
Halder, F. X..... 494
Hale, A. W., Notes on Hydraulic Cement 544
Hale & Norcross Mg. Co., Nev., 468, 587, 594, 685, 707, 745
Half Moon Mine, Colo.....315, 376
Hallam, Charles A..... 434
*Hall, Dr. James.....184, 215
Hall Mines, Ltd., B. C.....79, 200, 499, 589, 619, 740
Hall, Peter 614
Halleck Canyon Graphite Mine, Wyo. 289
Hallet & Hamburg Mg. Co., Colo. 136
Hallett Concentrating Table, Utah 528
*Hallett's Pat. Concentrator..342, 673
*Hallidie Collecting and Transporting System 551
Hallidie Co., San Francisco..... 614
Halloysite 402
Halloysite Mine, Ga..... 406
Hall's Pat. Rock Crusher..... 43
Haman, Benjamin P..... 434
Hamby Gold Mine, Ga..... 557
Hamilton Mg. Co., Mont..... 797
Hamilton Silver-Lead Mine, Tex. 108
Hammer, Vaughn's Pat..... 73
Hammond Folger Mines Co., Ont. 379
*Hammond Gold Dredge Boat.... 155
Hammond Gold Reef, Ont..... 409
Hammond, John Hays.....14, 475
Hamor's Pat. Rock Drill Piston.. 43
Hampden Corundum Wheel Co., Mass. 284
Hanauer, A., Jr..... 464
Hanauer Smelter, Utah.....48, 438
*Hancock Swinging Jig..... 249
Hand Drilling Contest..... 368
Hand, E. M..... 404
Hanna Coal Co., O..... 528
Hanna Coal Mines, Wyo..... 439
Hanna, L. C..... 74
*Hanson's Pat. Sand Pump..... 373
Hanson & Van Winkle Co., N. Y.. 765
Hap-Hazard Mine, Colo..106, 136, 346, 467
Happy Jack Mine, Colo..... 106
Harcourt-Smith, J., "Mineral Industry of Tasmania"..... 363
Hard Cash Mine, Cal.....615, 735
Hardenstein, H. L., Carbolite..... 692
Hardin, E. M..... 464
Harding & Co., Pa..... 438
Harding & Co., Slate Quarries, Pa. 378, 648, 678
Hardy, A. S., "Topographical Surveying" 543
Hardy & Co., Tenn..... 18
*Hardy's Pat. Casting Machine.. 313
Hargreaves - Bird Electrolytic Process 31
Harland's Pat. Roasting Furnace 343
*Harlow's Pat. Concentrator..... 43
Harney Peak Tin Mg. Co., S. Dak. 229, 235
Harquahala Gold Mg. Co., Ariz... 625
Harquahala Gold Mg. Co., Report 698
Harrington, N. C..... 404
Harrisburg Foundry & Machine Works, Pa.....524, 644
Harris, D. C..... 44
Harris, Lawrence 704
Harris Mine, Cal..... 15
Harris' Pat. Gas Making..... 312
*Harris' Pat. Gold Separator..... 583
Harris' Pat. Sheet Iron Rolling.. 193
Harris, S. B..... 584
Harris Sulphur & Copper Co., Newfoundland 110
Harris, W. N..... 464
Harris, W. T., "Report of Commissioner of Education"..... 62
Harrison Mine, S. Dak.....138, 408, 498
Harrison Safety Boiler Works, Pa. 644
Harry Leigh Mine, Colo..... 286
Hartford Chemical Co..... 704
Hart Group, Colo..... 346
Hart, W. Thomas..... 404
*Hartman's Pat. Blast Furnace Notch Gun 372
Hartley's Pat. Electro-Plating... 792
*Hartman's Pat. Drill..... 43
*Hartranft's Pat. Tuyere..... 73
Hartsfeld and the National Ore & Reduction Co.....512, 572, 601
Hartshorne, C..... 764
Hartville Iron Mines, Wyo..... 289
Hartwick, C. L..... 254
Hartsfeld Furnace..... 361
Hartsfeld in Mexico..... 361
Harvard University 794
Harze, E., "Statistics of Mines and Quarries of Belgium"..... 483
Hasselman Process for Preserving Mine Timbers 758
Hastings, J. B..... 284
Hasting's Pat. Gas Making..... 763
Hasting's Pat. Gas Producer..... 763
Hathaway, A. T..... 704
Hathaway, J. L..... 524
Hathaway Mine, Cal..... 375
Hathorne Pat. Die..... 612
Hauraki Peninsula, New Zealand, Gold Ore Treatment..... 575
Hawaii, Fertilizers in..... 624
Hawaiian Islands, Mining in..... 252
Hawkeye Mg. Co., S. Dak.....108, 408
Hawkeye-Pluma Mg. Co., S. Dak., 438, 798
*Haycock's Pat. Frozen Ground Working 343
Hay Creek District, Wyo..... 200
Hay, James..... 104
Hayden Hill Con. Mg. Co., Cal., 165, 676
Hayden Placer, Colo.....556, 706
Hayes, H. L..... 254
Hayne, G. O..... 614
Hayseed Mine, Cal..... 165
Hayseed Oil Co., W. Va..... 589
Hazard Mfg. Co., Pa..... 344
Hazard Roland..... 224
Hazle Dell Mine, Cal..... 466
Hazleton Boiler Co., N. Y..... 435
Hazleton Mine, Colo..... 76
Hazlewood, C. S..... 464
Head, Jeremiah 644
Healy, Capt. John J..... 674
*Heat Conversion into Power, Prall's Pat..... 373
*Heat Engine, Diesel..... 10
Heath's Pat. Dredge..... 133
*Heating Furnace, Pietzka..... 786
Heavy Stamps in California..... 91
Heberlein, C. A..... 254
Heberlein, Max 194
Heckscher, A., International Money of Uniform Value..... 453
Hecla Concentrator, Colo..... 405
Hecla Mg. Co., Colo..... 766
Hecla Mg. Co., Idaho.....136, 256, 557, 706
Heffner Ocher Bed, Pa..... 258
*Hegeler's Pat. Zinc Apparatus for Applying Grease to..... 252
*Hegeler's Pat. Zinc Smelting Furnace 522
Heighway, A. E., Monazite Production in N. C..... 543
*Heise's Pat. Coal Wedge..... 493
Heiskell Mine, Cal..... 735
Helena & Frisco Mg. Co., Idaho, 287, 586, 647, 736
Helena & Livingston Smelting Co. 342
Helena Mine, Oregon..... 138
Helena Stock Quotations.....Weekly
Heller Chemical Co., Ill..... 44
Hell's Neck Camp, Mo..... 527
Helmhacker, R., Bauxite in Austria 457
Helmhacker, R., Diamonds in Russia 516
Helmhacker, R., Gold and Lead Mines of Southern Russia..... 548
Helmhacker, R., Gold Production in Bokhara and Turkestan..... 398
Helmhacker, R., Mineral Resources of Persia..... 38
Helmhacker, R., Tungsten and Molybdenum Steel 430
Helmhacker, R., Useful Minerals of Turkey 635
Helvetia Mine, Cal..... 676
Hemlock River Mg. Co., Mich.... 737
Henderson, Dr. J. McClelland.... 794
Henderson, J. A. L., "Investigations of South African Rocks". 693
*Henderson's Pat. Gas Heating Apparatus 102
*Henderson's Pat. Oil Refining Apparatus 103
Hendrick's Pat. Filter Press..... 522
Henney, J. W.....74, 314
Henrietta Coal Mine, Pa..... 318
Henry, Oren H..... 464
Hercules Mine, Lion Hill, Utah.. 139
Hercules Mine, Stockton, Utah... 139
Hercules Mg. Co., S. Dak..... 18
Herman Mine, Cal..... 645
Herman Oil Co., W. Va..... 289
Herrick, J. F.....74, 794
Herschel Gold Mg. Co., Utah..... 679
Hertzog Blackboard Factory, Pa. 378
Heseler Gold Mine, N. S..... 649
Heskett & Jones' Pat. Steel Making 553
Hesselmeyer, George F..... 74
Hess' Pat. Battery..... 733
Heston & Harvison's Pat. Air Compressor 253
*Hetherington's Pat. Asphalt Melting Kettle 43
Hewett, M. L..... 674
Hickory Township Coal Co., Pa.. 261
Hidden Treasure Mine, Cal..194, 436
Hidden Treasure Mine, Colo..... 197
Hidden Treasure Mine, Ont..... 320
Hidee Gold Mg. Co., Colo.....136, 526
High Bar Placer, Idaho..... 46
High Creek Mill, Colo..... 436
High Falls Sulphite Pulp & Mg. Co. N. Y. 284
High Grade Mine, Colo....106, 616, 646
High Ore Gold & Copper Mg. Co., Mont. 17
Highland Boy Mg. Co., Utah..48, 259, 289, 348, 408, 438, 739
Highland Boy Smelter, Utah..48, 438, 523, 648
Highland Chief Mg. Co., S. Dak. 708
Highland Mg. & Milling Co., Utah 768
Hilberg's Pat. Electrolysis of Metallic Chloride..... 763
Hilgenstock's Pat. Coke Oven.... 13
Hilgenstock's Pat. Coke Oven Door 373
Hill, Alexander..... 674
Hill, Alfred 614
Hill Farm Coal Mine Fire..... 454
Hill, R. F., Jr..... 584

Hill, Robert P., "Cuba and Porto Rico" 663
Hill Top Mg. Co., Colo.....106, 226
Hillard & James Iron Mine Suit, Minn. 497
Hillebrand, W. F., "Estimation of Chromium in Rocks" 363
Hillebrand, W. F., "Vanadium and Molybdenum Occurrence in U. S." 363
Hilles & Jones Co., Del..... 765
Hillhouse, James D..... 320
Hillhouse Mine, Colo..... 136
Hillside Chemical Co., N. Y..... 404
Hillside Mine, Colo.....16, 226, 315
Hillside Mine, Utah....19, 139, 260, 589, 739
Hillside-Seven Stars Case..... 542
Hill's Pat. Rock Drill..... 703
Hineman Mill, Mont..... 168
*Hinman's Pat. Gold Extraction from Ores..... 493
Hirlinger's Pat. Drill Clutch..... 613
*Hirsch's Pat. Electric Welding.. 72
*Hirt's Pat. Coke Oven..... 162
Hite Mine, Cal..... 66
Hi Yu Mine, Idaho..... 16
Hoboken Slate Quarry, Pa.....528, 648
Hobson's Pat. Artificial Stone..... 433
Hocking Valley Coal Mine, Iowa. 316
Hoffman G. C., "Chemistry and Mineralogy Report to Geological Survey of Canada"..... 453
Hoffman, George J..... 434
Hoffman, H. A..... 794
Hoffman, J..... 254
Hoffman, J. C..... 194
Hofman, H. O..... 374
Hofman, H. O., Determining Resistance of Fire Clay..... 485
Hofman, H. O., Fusibility of Clay 485
*Hofman, H. O., Illuminating Gas and Coke from By-product Coke Ovens.....428, 458
Hohenthal, Albert..... 404
Hoist, Compressed Air..... 306
Hoist, Louis' Pat..... 462
Hoisting Apparatus, Bidwell's Pat. 372
*Hoisting Bucket, Jenkins' Pat... 493
*Hoisting Engine, American for Japan 671
*Hoisting Engine, Coal Mine..... 491
*Hoisting Engine, Weber Gasoline 791
*Hoisting Engine, Witte Gasoline 131
Hoisting Rope, Breakages of..... 457
Holden, A. F.....14, 104
Holland, Coal Mining..... 672
Holland Gold Mg. Co., Utah....19, 169, 588, 648
Holmes, Booth & Hayden, Conn.. 404
Holmes & Co., Mine, Mo..... 257
Holmes Copper Claim, Wyo..... 349
*Holmes' Pat. Electric Drill..... 73
Holmes, W. H..... 524
Holt & Gregg Quarry, Cal..... 286
Holy Moses Mine, Colo..... 467
Holy Terror Mg. Co., S. Dak..199, 289, 348, 468, 528, 558, 618, 709, 798
Home Fraction Mine, Colo..... 796
Home Mg. Co., Colo.....16, 46, 76
Homestake Mg. Co., B. C..79, 169, 230, 379, 559, 619
Homestake Mg. Co., Cal.....105, 315
Homestake Mg. Co., S. Dak..138, 288, 318, 408, 438, 468
Homestake Mg. Co., S. Dak., Report 361, 371
Honnold, W. L..... 224
Honorine Mine, Utah.....349, 799
Hood C..... 44
Hood Machine Works, Ala..... 531
Hooker Steam Pump Co., Mo..... 164
Hooper, David, "Mineral Production in India in 1897"..... 723
Hooper, J. de B..... 320
Hoosier Gold Mg. Co., Idaho..... 376
Hootalinqua River, Alaska..... 170
Hoover, H. C..... 764
Hoover, H. C., Mining and Milling Gold Ores in W. Australia.. 725
Hoover, Herbert C., Superficial Alteration of Ore Deposits in Western Australia..... 520
Hope Mine, Cal.....45, 436, 705
Hope Mg. Co., Jefferson County, Mont. 198, 707, 737, 797
Hope Mg. Co., Madison Co., Mont. 558
Hopkins-Alaska Gold Mg. Co., Alaska 285
Hopkins, Gerald V..... 404
Hopkins, J. F..... 644
Hopkins, John..... 194
Horn Blende Camp, S. Dak..469, 558, 618
Horn Silver Mg. Co., Utah..18, 469, 798
Hornbrook, S. C..... 584
Horry, W. S., Electric Smelting at Sault Ste. Marie..... 37
Horsefly Mine, B. C..... 230
Horseshoe Mine, Utah..... 739
Hose, Large..... 63
*Hot Blast Stove, Roberts' Pat... 732
Houston, Stanwood & Gamble, Ky. 44
Hovey, E. O., American Association for the Advance of Science. 276
Howard, C. M..... 164
Howard Phosphate Property, Tenn. 259
Howe, Frank D..... 674
Howe, H. M..... 374
Howell & Berry's Pat. Crusher... 193
Howell, Robert..... 134
Howell Slate Quarry, Pa...78, 258, 378
Hower Slate Company, Pa.468, 528, 770
Hubbard & Co., Md..... 555
Hubble Creek Marble Co., Utah.. 379
Huber's Pat. Rolling Mill.....13, 673
Hudson Iron Co., N. Y..... 285
Hudson Mine, Colo..... 76
Hufty & Caldwell's Pat. Iron Casting 673
*Hulett's Pat. Loading Machine.. 103
Hulswit, J. S..... 494
Humboldt Mine, N. M..... 228
Humboldt Mg. Co., Mich.....407, 497
*Humfrey's Pat. Gas Producer... 523
Humming Bird Mine, Idaho..... 677
Humpback Mine, Cal..... 255
Humphrey Machine Co., N. H.... 675
"Hungarian Statistical Yearbook" 2
Hungary, Petroleum in..... 731
Hungary, Pyrites in..... 784
Hunt, Alfred E..... 314
Hunt, Bernard, Fuel at Caylloma Mines, Peru 727
Hunt, Bertram..... 314
Hunt, C. W. Co.....435, 524
"Hunt, Dr. Thomas Sterry, Memoir of"..... 243
Hunt, Robert W. & Co..... 494
Hunter, A. V..... 524
Hunter, Gordon..... 494
Hunter Mine, Idaho..... 406
Huntington Centrifugal Mill in California 765
Hurd Iron Mine, N. J..... 498
Hurd, James D..... 344
*Hurford's Pat. Mine Door..... 762
Hurley, Thomas J.....74, 254, 524
Hurley, Thomas J., "Historical Gold Nuggets"..... 153
Hurricane Point Mine, N. S....20, 649
Huser, G..... 794
*Hussener's Pat. Coke Oven..... 792
Hutchinson, James.....674, 794
Hutchinson, J. D..... 434
Hutton, W. S., "Steam Boiler Construction" 215, 543
Hyatt Roller Bearing Co., N. Y.. 704
Hyde 40, Minn..... 227
Hydraulic Blasting, Gay's Pat.... 523
Hydraulic Cement, Notes on..... 544
Hydraulic Elevator in the Comstock 571
"Hydraulic Engineering, Calculations in 93
*Hydraulic Hammer, Beau's Pat. 193
*Hydraulic Mining in the Klondike 753
*Hydraulic Mining, Lay System.. 97
Hydraulic Mining on Navigable Streams 761
Hydraulic Mining Regulations, Yukon 710
*Hydrocarbon Burner, Call's Pat. 733
Hydrocarbon Burner, Curran's Pat. 703
Hydrocarbon Burner, Elkins' Pat. 703
*Hydrocarbon Burner, Scherer's Pat. 342
*Hydrocarbon Burner, Wild's Pat. 582
*Hydrogen Gas Making, Tracis' Pat. 403
Hydrogen Peroxide as Antidote for Cyanide Poisoning..... 211
Hymer Placer, S. Dak..... 108

I

Ibarra Mg. Co., Mexico..... 740
Ibex Mines Co., Colo..136, 226, 406, 526, 736
Ice Lake Basin, Colo..... 256
Idaho Antimony Mg. Co., Idaho. 16
*Idaho, Basic Company's Flume. 455
Idaho Company, Idaho..... 557
Idaho Mine, B. C.....290, 529
Idaho Mine, Colo..... 616
Idaho Recovery Mg. Co., Idaho.. 617
Idlewild Mine, Cal..... 135
Iglehart, Wm..... 74
Ihlseng & Norton Lease, Mo..... 377
Ihne, F. W.....284, 524
Illinois Central Coal & Salt Co., Ill. 197
Illinois Coal Miners Strike.....452, 467
Illinois Central Railroad Coal Mine, Ala..... 470
Illinois Coal Miners Strike....452, 467
"Illinois Coal; Report of State Bureau of Statistics"..... 33
Illinois Governor and the Coal Miners 481
Illinois Group, Colo..... 346
Illinois Mine, Colo.....76, 166
Illinois Mg. Co., Utah.....588, 619
Illinois Placer Gold Mg. Co., Colo. 616
Illinois Steel Co....231, 242, 255, 614, 675
Illinois Steel Co., Exports of Plates 301
*Illuminating Gas and Coke from By-product Coke Ovens.....428, 458
Ilse's Pat. Assay Furnace..... 43
Imhaus, E..... 494
Imogene Basin, Colo..... 197
*Impact Tool, Rhodes' Pat..... 613
Imperial Iron Mine, Mich..... 377
Imperial Slate Co., Pa.....648, 798
Incandescent Lighting, Mahler's Pat. 103
Independence Mine, Colo.....376, 467
Independence Mine, Ontario....20, 320
Independence Town & Mg. Co., Colo..76, 196, 226, 286, 376, 466, 496, 585, 796
Independent Mine, Cal..... 165
Independent Mine, Colo..... 496
India, Aluminum..... 394
"India, American Trade with"..303, 423
India, Coal.....95, 727
India, Gold..... 602
India, Iron Ore.....333, 729
India, Magnesite in..... 669
India, Mica..... 606
"India Moral and Material Progress" 393
India, Petroleum..... 731
"India, Review of Mineral Production for 1897"..... 723
India Rubber, Artificial..... 157
India, Salt.....185, 730
India, Silver..... 602
India, Slate in..... 728
Indiana Gas Well Law..... 130
Indiana Gold Fields..... 573
Indiana Natural Gas..... 47
"Indian Currency Evidence"..... 393
Indian Pipestone..... 612
Indian Reservation, Mineral Lands on..... 580
Indo-China Railroad..... 805
Industrial Chemistry 271
Industrial Company, Mexico..... 434
Inflammable Gases, Application of Chemistry to..... 191
Ingalls, Walter Renton, Ashcroft Process for Lead and Zinc Sulphide Ores..... 488
Ingersoll-Sergeant Drill Co., N. Y. 344
Ingersoll-Sergeant Drill Company, "Air Compressor Catalogue No. 12" 243
Ingersoll's Pat. Brick..... 703
Ingham Con. Gold Mg. Co., Colo., 525, 796
Ingold Mg. Co., Colo..... 76
*Ingot Mold, Meyer's Pat..... 192
*Ingot Pouring, Levy's Pat..... 553
Ingrey's Pat. Coal Weighing..... 192
Inguaran Copper Mines, Mexico, 170, 470, 559
Injured Men Carrying from Mines 756
Injuries from Ordinary Risk..... 221
"Inorganic Chemistry According to the Periodic Law"..... 393
"Inorganic Preparations, Laboratory Manual"..... 363
Insolvent Company, Liability on Stock 130
"Institute" or "Institution of Mining Engineers..... 481
"Institution of Mining and Metallurgy, Transactions".....573, 603
International Mine, Mont..... 617
International Mg. Co., Mexico.... 530
International Mining Congress, 1, 15, 34, 61, 64, 108
"International Mining Congress, Proceedings" 393
International Paper Co..... 255
International Phosphate Co., Tenn. 709, 798
International Silver Co..... 675
International Society for Testing Materials 44
International and Trans-Mississippi Exposition..... 36
Inyo Con. Mg. Co., Cal..... 555
Inyo County Mines, Cal..... 466
Iola Mine, Idaho..... 647
Iowa Alaska Mg. Co., Alaska..... 435
Iowa Con. Mg. Co., Mo..... 198
"Iowa Geological Survey Annual Report" 333
Iowa & Illinois Coal Co..... 407
Iowa Lease, Mo..... 557
Iowa Mill, Idaho..... 706
"Iowa Mine Inspector's Report".. 753
Ireland, Calcium Carbide Manufacture in..... 282
Iridium 132
Irish Syndicate, Mont..... 137
Iron, Allotropic..... 71
Iron Amalgam..... 393
Iron, Belgium.....244, 666
Iron Bridge, Old..... 69
Iron Casting, Hufty & Caldwell's Pat. 673
Iron Casting Patents and the Carnegie Steel Co..... 661
Iron Chest Mine, Colo..... 705
Iron Chief Mine, Cal..... 705
Iron Chromium Carbide..... 611
*Iron and Coal in Eastern China. 365
Iron Colt Mine, B. C..... 349
Iron Crown Mine, Idaho..287, 376, 526
Iron Excitement at Pittsburg..... 202
Iron Exports.....51, 321, 331, 591
Iron Exports, Great Britain..... 372
Iron Hill Mine, S. Dak....199, 259, 618
Iron Home Mine, B. C..... 439
Iron Horse Mine, B. C....499, 559, 769
Iron Industry, Russia..... 217
*Iron Making, Blast Furnace Plant, Lorain, O..... 187
Iron Making Capacity, U. S..... 4
Iron Market, Birmingham, Buffalo, Chicago, Cleveland, New York Philadelphia and Pittsburg .....Weekly
Iron Market Review.....Weekly
Iron Mask vs. Center Star Mg. Co., B. C..... 680, 799
Iron Mask Mine, B. C.....319, 469, 589, 710
Iron Mine Accounts..... 334
Iron Miners' Wages, Minn....377, 737
Iron Mines, Haiti..... 483
Iron Mines, Ontario..... 769
Iron Mines, Sweden..... 582
*Iron Mixer Patent, Jones..... 399
Iron Molybdenum Carbide..... 611
Iron Monitor Mine, Wash.....679, 709
Iron Mountain Mg. Co., Mont.... 407
Iron, Ontario.....335, 581
Iron Ore, Alabama..... 694
Iron Ore Cargoes, Lake Superior. 287
Iron Ore Carriers, Large Lake... 301
Iron Ore, Chinese in Austria..... 551
Iron Ore Discovery in Scotland.. 728
Iron Ore, Elba..... 130
Iron Ore Exploration with Magnetic Instruments..... 337
Iron Ore Exports, Sweden..... 5
"Iron Ore Fields of Northern Sweden" 753
Iron Ore, France..... 295
Iron Ore, India.....333, 729
Iron Ore, Japan..... 221
Iron Ore Lake Superior in 1898.... 751
Iron Ore, Lapland..... 220
Iron Ore Movement, Lake Superior 121
Iron Ore Rates.....287, 347, 377, 617
Iron Ore Shipments, Marquette, Mich. 706, 737
Iron Ore Shipments, Minnesota... 677
Iron Ore Supplies, Europe..... 722
Iron Ore Supplies, France..... 385
Iron Ore Supply, Great Britain... 212
Iron Ore, Tasmania..... 499
Iron Ore Treatment, Kleber's Pat. 163
Iron Ore Trade, Germany..... 728
Iron Ore, Turkey..... 635
Iron Ores, Mesabi Drying.....453, 661
Iron Oxide Making, Peak's Pat... 192
Iron, Pig, Cost in Alabama..... 691
Iron Production, Austria.....65, 547
Iron Production, Belgium..42, 454, 551
Iron Production, France..... 535
Iron Production, Germany..64, 364, 551, 574, 726
Iron Production, U. S.....62, 122, 126
Iron Silver Mg. Co., Colo..76, 136, 235, 286, 376, 526, 586
Iron Stacks at Chlorination Works 573, 603
Iron and Steel Exports, Great Britain 246
Iron and Steel Exports, U. S..... 742
Iron and Steel Institute of Great Britain, "Journal"..... 243
"Iron and Steel Manufacture at Marquette, Mich."..... 154, 363
Iron and Steel Production, Canada 454
"Iron and Steel Works of the U. S." 33
Iron Sulphate from Pyritic Shales 789
Iron, Tasmania..... 649
*Iron Titanium Alloy, Rossi's Pat 312
Iron Trade, British, American Competition in..... 451
Iron Trade, British, Note on..... 574
Iron Trade, New Capital in..... 781
Iron Works, New, in Russia..... 694
Iron Works, Profits in Germany.. 612
Ironsides Mg. Co., B. C..... 200
Irwin, Thomas M..... 134
Isabella Gold Mg. Co,. Colo..166, 315, 406, 556
Isle Royal Mg. Co., Mich..16, 227, 346, 647
Ismay's Pat. Paint Making..... 342
Italian Mine, Idaho.....166, 227
Italy, Asphalt in Laviano..... 334
"Italy, Commercial Movement in 1897" 663
Italy, Electric Power Transmission 754
"Italy, Exhibit at Turin"..... 333
Italy Quicksilver..... 514
Itasse's Pat. Transferring Drawings 493
Ivanhoe Assoc. Group, W. A..... 769
Ivanhoe Gold Mg. Co., Cal....375, 495
Ivanhoe Mine, Colo..... 106
Ivins' Pat. Tube Machine..... 283
Ivy Coal Co., Ala..... 195
Ivy Leaf Coal Co., Ala..... 110

J

Jack Pot Mg. Co., Colo.....255, 616
Jack Rabbit Mine, Ariz..... 555
Jackson Bros. Slate Quarry, Pa., 288, 587
Jackson Drill and Mfg. Co., Colo. 435
Jackson Gate Mine, Cal..... 285
Jackson Iron Co., Mich..... 767
Jackson, J. E.....254, 314, 464
Jackson Slate Co., Pa..78, 138, 258, 678, 738
Jacksonville Mg. Co., Mo..... 647
Jacobs, J., Copper River Country, Alaska 154
Jake Moore Mine, Cal..... 345
Jalhay, H., "Republic of Colombia" 453
James, Alfred..... 614
*James & Jordan's Pat. Gold Ore Treatment 102
*James' Pat. Ore Feeder..... 103
*Jameson, C. D., Coal and Iron in Eastern China..... 365
Jameson, Charles D., "Portland Cement" 693
Janin, Louis, Jr..... 494
*Janney, Morris P..... 727
*Japan, American Hoisting Engine for..... 671
Japan, Cement..... 246
Japan, Cement Combine..... 607
Japan, Chemical Trade..... 789
Japan, Coal..... 368
"Japan Commerce and Industry" 33
Japan, Foreign Trade..... 23
Japan, Galvanized Iron in..... 514
Japan, Iron Ore..... 221
Japan Mines Co., Colo., 106, 227, 338, 646
Japan, Mineral Exports..... 5
Japan, Sulphur in..... 454
Japanese Coal Mines..... 332
Jaquet, J. B., "Gold Dredging in New South Wales"..... 513
Jaquet, J. B., "Report on Gold Dredging in New Zealand"..... 573
Jasper County Coal Co., Iowa..... 16
Jasper Mine, Colo..... 766
Jasper Town & Land Co., Ala., 374, 410
Java, Tin Exports..... 4
Jay Bird Group, Colo.....226, 376
Jay Gould Mine, Idaho..... 346
Jay Gould Mg. Co., Mont..... 258
Jayne Mine, Cal..... 525
Jeanesville Iron Works Co., Pa., 344, 434, 465, 675, 735, 765
Jeans, J. Stephen, "Regulation Coal Output and Prices in Great Britain" 603, 633
Jefferson & Clearfield Coal & Iron Co., Pa..... 205
Jefferson Coal, Coke & Rwy Co., Ala.....140, 410, 440
Jefferson Mg. Co., Colo.....15, 196, 556
*Jeffrey-Columbian Separator..... 579
*Jeffrey Electric Locomotive..... 731
Jeffrey Mfg. Co., O.....224, 645, 675

*Jeffrey Slag Elevator..... 130
*Jeffrey's Scraper Conveyor..... 341
Jellico Coal Mg. Co., Tenn..... 199
Jelm Mountain Mines, Wyo..... 529
Jenckes Machine Co., Ont..... 224
Jenkins, Henry C..... 644
*Jenkins' Pat. Hoisting Bucket.. 493
Jennie's Gulch, S. Dak..... 318
Jennings, J. H..... 704
*Jernigan Accumulator..... 581
Jerome Arizona 345
Jesse James Mine, Idaho..... 346
Jessie Lincoln Mine, Cal..... 585
Jessie Mine, Colo.....46, 582
Jessup, Richard M..... 734
Jewel Belting Co., Conn..... 554
Jewell Mine, Colo..... 136
J. F. & C. Mine, Mont.....137, 198
Jillson Mine, Oregon..... 437
Jilson Mine, Cal..... 45
Jim Blaine Mine, Colo.....226, 585
Jim Blaine Mg. Co., Wash..... 439
Jim Corbett Mine, Colo..... 256
Jipaguaja Mine, Mexico..... 440
Jobs' Coal Mine, Ohio.....288, 587
Joe Bowers Extension Mg. Co., Utah 679
Joe Bowers Mg. Co., Utah..13, 139, 259, 408, 499
Joe Reynolds Mine, Colo..... 646
John A. Logan Mine, Colo..... 286
John Jackson Mg. Co., Mo..... 198
Johns, L. W..... 320
Johns, Thomas 224
Johnson, A. N..... 164
Johnson, A. N..... 164
Johnson Coal Co., Pa..80, 110, 228, 678
Johnson, John 794
Johnson, John & Co., N. Y..... 735
Johnson-Kansas Mine, Colo..... 136
Johnson, Nelson..... 764
Johnson Nickel Mg. Co., Minn..... 527
Johnson Oil Leases, W. Va..... 589
Johnson, W. D..... 374
Johnson's Pat. Coal Cutter..... 553
Johnson's Pat. Pulverizer..... 762
Johnson's Pat. Slimes Treatment. 433
Johnstown Mg. Co., Mont..... 437
Jones Creek Coal & Coke Co., W. Va..... 48
Jones, D. A..... 614
Jones Group, Oregon..... 288
*Jones' Iron Mixer Patent.....399, 481
Jones & Laughlin Co., Pa..... 675
Jones, John L..... 134
Jones, John T..... 14
Jones, J. P..... 434
Jones, J. Wyman..... 614
Jones Mine, Colo..... 196
Jones' Pat. Electrolytic Zinc Process 133
*Jones' Pat. Hand Rock Drill..... 133
Jones' Pat. Pump..... 793
Jones' Pat. Steam Stamp..... 163
Jones' Steel Mixer Patent..... 302
Jones, T. R..... 134
Jones, W..... 434
Jonte's Pat. Conveyor..... 223
Joplin Ore Market, Mo.....Weekly
Jordan vs. Duke, Ariz..... 135
Jordan Mountain Manganese Mine, New Brunswick..... 260
*Jordan's Pat. Gold Ore Treatment 643
*Jordan's Pat. Ore Dryer..... 613
Josephine Mine, Cal.....375, 466
Josephine Mg. Co., Oregon..... 168
Josephine Placer Co., Idaho..... 436
Joseph Ladue Gold Mg. Co..72, 325, 495
*Joseph, M. H., Republic Mine, Wash. 545
Josie Mine, B. C..... 769
Juarez Concentrating & Smelting Works, Mexico 140
Jubilee Gold Mine, N. S..... 350
Judge Mine, Mont..... 17
Juessen, Edward 674
Julia Ann Placer, Colo..... 316
Julia Mine, N. M..... 288
Juliette Phosphate Mg. Co., Fla.. 736
July Bird Mine, Colo..... 705
Jumbo Mine, Colo..... 616
Jumbo Mg. Co., Cal..... 466
Jumper Mine, Cal..... 166
Junction Mine, Cal..... 166
Juniata Mine, Cal..... 315
Junior Order Mine, Colo....16, 76, 226, 315, 436, 676
Jupiter Coal Mg. Co., Ill..... 257
Juragua Iron Co., Cuba..... 439
Jury Determination of Evidence. 251
Jury to Determine Facts..... 521

K

Kady Mg. Co., Colo..... 616
*Kaemmerling's Pat. Smelting Furnace 402
Kaercher, Franklin P..... 584
Kaestner & Co., Chicago..... 435
*Kaiser's Pat. Oil Well Tool..... 703
Kalgoorlie District, Western Australia 559
Kalgoorlie Mining Co., W. A..... 589
Kamloops, B. C. Copper Mining.. 698
Kanaka Mg. Co., Cal..... 555
Kanawha Falls Dam, W. Va..... 260
Kanawha Falls Electric Power Co., W. Va..... 379
Kane, W. F..... 674
Kansas Burroughs Con. Gold Mg. Co., Colo 346, 467, 585
*Kansas, Cement Plaster 576
Kansas City Con. Sm. & Ref. Co. 265, 440
Kansas, Coal 76, 664
Kansas Coal Screen Law..... 316
Kansas Coal Weighing Law..... 340
Kansas, Gypsum Mining 497
Kansas Mine, Colo 286
Kansas & Nebraska Mg. Co., Mo. 587
Kansas & Texas Coal Co., Mo.... 527
Kaolin 42, 702
*Karyscheff's Pat. Oxide of Iron Reduction 253
Kasimir Coal Mines, Silesia..... 260
Katie Mine, Mont.....138, 228, 797
Kato, K. 614, 794
Keane, Arthur 464
Keating Mine, Cal 105
Keely, John E. W..... 644
Keely and the Keely Motor..... 662
Keffen Colliery, Pa..... 78
Keffer, C. A., "Tree Planting on the Plains" 154
Keller, H. 464
Keller, Herman A.....284, 434, 494, 554, 704, 734, 764
Keller's Oil Well, Ind..... 166
*Keller's Pat. Gas Generator..... 463
Kelley Nail and Iron Co., Ohio... 675
Kellogg Creek, Cal..... 375
Kellog, Martin 404
Kelly Nail & Iron Co., Ohio..... 254
Kelsey, Charles R..... 644
Kemmerer Coal Co., Wyo..... 619
Kemp Placer, Colo..... 405
*Kennedy, J. C., Wyoming Copper Region 640
Kennedy, Julian 14
Kennedy Mg. Co., Cal.....165, 195, 645, 705, 765, 795
Kennedy Valve Co., N. Y..... 14
Kennet Chlorination Plant, Cal.. 105
Kennett Mine, Mont.....618, 707
Kensington Mine, Alaska 705
Kentucky Boy Mine, Colo..... 226
Kentucky, Clay and Building Stones 190
Kentucky Fire Brick Works, O.. 587
Kentucky Fluorspar Mg. Co., Ky. 47
"Kentucky Inspector of Mines Report" 274
Kentucky & Montana Mg. Co., Mont 17, 78, 228, 317, 617
Kentucky, Petroleum 104
Kenyon Mine, Cal..... 585
Kerkup, John 74
Kern County Stamp Mills, Cal.... 705
Kerns Mine, Ga..... 557
Kerr's Pat. Bosh Plate..... 763
*Keyes' Pat. Coke Oven..... 283
Keyes, W. S....44, 104, 164, 254, 284, 404
Keys with Steel Ends..... 217
Keystone District, S. Dak.....48, 78
Keystone Driller Co., Pa..... 735
Keystone Granite Co., S. C..... 168
Keystone Mine, Cal.....345, 495, 585, 645
Keystone Mine, Mont.....77, 678
Keystone Placer, Colo.....227, 677
Kibble, W. O..... 434
*Kibling's Pat. Dredge for Mining 403
*Killeen's Pat. Blast Furnace Casting Apparatus 193
*Killen's Pat. Tuyere Cooler..... 583
Kimball, G. H..... 434
Kimber's Pat. Rock Drill Sharpener 763
Kimes' Pat. Pump..... 673
Kindergarten Mg. Co., Mo..... 377
King & Andrews Co., Ill..... 254
King of Arizona Mg. Co., Ariz. 105, 345, 435
King, C. S..... 104
King, F. P., "Report on Georgia Gold Deposits" 753
King, Gilbert & Warner Co., O.. 261
King Solomon Mine, Mont..47, 527, 587, 737, 767
King Solomon Mines, Ariz..... 555
King of the West Mine, S. Dak. 709, 798
*King's Pat. Chilean Mill..... 523
Kingston Coal Co., Pa..... 408
Kinkhead, James H..... 524
Kinne & Gartner's Pat. Compressible Tube 373
Kinney Gold Mg. Co., Utah..... 199
Kirkham Mine, Cal..... 795
Kirk Mine, Colo..... 166
Kirkwood Nickel Mine, Ont..... 769
Kislingbury, George 734
Kismet Gold Mg. Co., Utah..... 648
Kitty M. Mine, Colo..... 196
Klamath River Placers, Cal..... 525
Klay's Pat. Brick Machine..... 763
Kleber's Pat. Iron Ore Treatment 163
Klingensmith Oil Well, W. Va... 48
Klondike, Arrivals from 61, 79
Klondike Bonanza, Limited, Canada 230, 722
Klondike & Columbia Goldfields, Ltd. 325, 595
Klondike Companies in London.. 722
Klondike District, Canada..... 440
Klondike and Dr. Robert Bell.... 151
Klondike, Drilling in 372
Klondike Exploration Co., Alaska 255
Klondike Gold Output 109, 211
Klondike Gold Receipts from.... 139
Klondike Hydraulic, Limited 722
Klondike, Hydraulic Mining in... 753
Klondike Mine, Ariz..... 345
Klondike Mine, Colo..... 766
Klondike Mg. Co., Utah..... 48
Klondike Mg. & Milling Co., Idaho 647, 677, 706
Klondike Prospects and Returns. 181
*Klondike, the Road to..... 65
Klondike Taxation 139
Klondike Traffic 135
*Knapp, N. A., New Stadia Diagram 219
Knapp Oil Well, Cal..... 705
Knickerbocker Chemical Co..... 264
Knickerbocker Tunnel Co., Colo 45, 225
Knight, W. C., Bentonite..... 491
Knight, W. C., Wyoming Clays and Building Stones.....546
Koehler, W. J..... 404
Koenig's Pat. Electric Battery... 643
*Kohlbusch, Assay Balance..... 371
Kohr's Placers, Mont..... 377
Koneman & Hartley's Pat. Slimes Treatment 373
Konemann Process 511, 625
Koninck, L. G., de, "Paleontology of New South Wales" 633
Kootenay Air Supply Co., B. C... 200
Kootenay Railroad and Navigation Co., B. C..... 235
Korea, American Engineer in..... 342
Kortz, J. C.....74, 344
Kotzebue Sound, Alaska..224, 345, 435
Koyukuk River, Alaska 435
*Kraemer's Pat. Thawing Earth for Placer Mining 673
Kress & Spear Slate Quarry, Pa. 438
Kreugel, W. 734
Kreuser's Pat. Magnetic Separator 613
Kuntz, George F., "Pearl Fisheries and Fresh Water Pearls of the U. S." 513
Kurtzwernhardt, Adalbert 584
Kytchtym Medal 518

L

La Bellevue Mine, Oregon..... 618
Labrador & Newfoundland Exploration Co 49
"Labrador Peninsular" 453, 482
Labram's Pat. Diamond Savings 373
La Cigale Mg. Co., Utah..649, 739, 799
La Cigale Water and Power Co., Utah 619
Lackawanna Iron & Steel Co., Pa. 254
Lackawanna Slate Co., Pa...138, 199, 258, 318
Lacy's Pat. Stamp Mill Feeder.. 523
Lafayette Mine, Colo..... 646
Laflin Rand Powder Co..... 74
Lagonda Mg. Co., Colo..... 196
Lagrange Mine, Cal..... 496
Lagunas Nitrate Syndicate, Ltd., Chile 800
Laidlaw-Dunn-Gordon Co., Ohio 14, 44, 344, 374
Laine, Charles D..... 494
Lake Bonneville Co., Utah..... 559
Lake City District, Cal..... 585
Lake Coal Trade.....121, 334
Lake Freight Rates.....1, 16 52, 77, 112
Lake Iron Ore Freights..... 622
Lake Iron Ore Rates, 257, 317, 347 502, 526, 532
Lake Ore Carriers, Large..... 301
Lake Park Mine, Colo..... 226
Lake Park Section, Colo.....256, 316, 646
Lake Steamer, Largest..... 454
Lake Superior Con. Mines, Minn. 77, 137, 227, 257, 497, 557, 617
*Lake Superior Copper Mine..... 35
Lake Superior Iron Co., Mich. 167, 586, 767, 775
Lake Superior Iron Ore Movement 121, 951
Lake Superior Mining Institute 74, 284
Lake Vessel Charters 526
Lake View Consols, Western Australia 559
Lambetti, Edward 704
*Lamp Holder, Magnetic 551
Lamphyre Mine, Cal..... 705
Lancaster's Pat. Conveyor 42
*Lancaster's Pat. Excavating and Conveying Apparatus 12
Land Elevation in the Hudson Bay Territory 514
Landin Chlorination Plant, Sweden 33
*Landis' Pat. Conveyor 463
Lane & Bodley Co., O.....74, 344, 405
Lane, T. T..... 554
Langford, Dr. J. W., and Gold Prospecting in Cuba 710
Langguth's Pat. Electrolytic Diaphragm 703
*Lang Smelting Furnace 157
Lanyon Smelter, Kansas 137
Lapis Lazuli 522
Lapland, Iron Ore 220
*La Plata Mountains, Colo..... 667
La Porte Gold Mg. Co., Cal..... 736
Lappin Mine, Cal..... 466
Lardeau-Goldsmith Mines, Ltd., B. C. 529
La Reine Mg. Co., Utah.....528, 588
*Larkin's Pat. Retort Oil Burner 312
La Sal Copper Co., Utah..... 679
La Sal District, Utah.....78, 588, 738
La Salle Mine, Colo..... 376
Lascelles' Pat. Coal Cutter..... 343
*Last Chance Case, New..... 490
*Last Chance Decision.....61, 66, 92, 95, 123, 127, 152, 154, 182
*Last Chance vs. Del Monte Mg. Co., Decision....61, 66, 92, 95, 123, 127, 152
Last Chance Mine, B. C..... 529
Last Chance Mine, Colo..... 676
Last Chance Mine, Mont..... 767
*Last Chance vs. Stemwinder Mine, Idaho 490
Last Dollar Mine, Colo.....15, 436
La Tosca Mg. Co., Mo..... 17
Laughamener, Dr. Paul 764
Laughlin, James 134
Laughlins & Co., Pittsburg...465, 735
Launoy Roaster, Colo 616
Laurel Hill Colliery, Pa..... 437
Laurel Hill Slate Quarry, Pa..... 708
Laurent & Cherry's Pat. Conveyor 582
Laurent, Louis E..... 464
Laurmann, F. 704
*Lauter's Pat. Tunneling Machine 523
*Lautz's Pat. Stone Sawing Machine 403
*Lavocat's Pat. Cement Kiln 703
Lavoisier Medal and M. Osmond. 572
Lawall, Elmer H..... 44
Lawrence, B. B..... 344
Lawrence Mg. Co., Oregon..... 288
Lawson, A. C..... 224
Lawson, Mr. and the Boston Market 805
*Laws' Pat. Blasting Tool..... 13
Lawton, J. S..... 164
*Lay System Hydraulic Mining... 97
*Leaching Apparatus, Moodie's Pat. 223
Leaching Ores, Weatherwax's Pat. 193
Leaching Tank, Moodie's Pat..... 133
Lead Deadwood Placer Mg. Co., Idaho 256
Lead Exported, Drawbacks on.... 154
Lead Exports and Imports....354, 542
Lead Imports, Great Britain..114, 264, 383, 534, 774
Lead King Mine, Mont..... 797
Lead Lining of Chlorination Tanks 612
Lead Market and Prices.....Weekly
Lead Mines, Southern Russia..... 548
Lead Mines of the United States. 302
*Lead Pigment, Petraeus' Pat.... 463
Lead Prices 462
Lead Prices, Utah 558
Lead, Spanish, Duty on in France 204
Lead Sulphite Manufacture, Charlier's Pat 193
Lead, Turkey 635
Lead and Zinc Sulphide Ores, Ashcroft Process 488
Leadville Downtown Mines, Colo. 256, 706, 796
Leadville Electric Plant, Colo..... 526
Leadville Mineral Belt Railroad, Colo..... 556
Leadville Mining Progress 541
Leadville Ore Production, Colo. 316, 556, 677, 736, 796
Leadville Ore Shipments, Colo. 406, 616
Leadville Pumping Association, Colo..106, 226, 235, 346, 475, 496, 526, 556, 586, 616, 766
Lease, Definition of..... 221
Leckie, R. G..... 284
Leechburg Foundry and Machine Co., Pa 164, 735
Leech, W. C..... 374
Lee, Elliott & Tatham's Pat. Gas Making 673
Lee, H. A..... 434
Leffman H., "Commercial Organic Analysis" 393
Legal Tender Mine, Mont.....228, 258, 377, 437, 678
Lehigh Coal & Iron Co., Pa.....468, 767
Lehigh Coal & Navigation Co., Pa 618, 706, 767
Lehigh Drainage Co., Mo..... 17
Lehigh Mg. Co., Mo..... 347
Lehigh University 734
Lehigh Valley Coal Co.....50, 78, 168, 258, 290, 318, 378, 410, 437, 498, 560, 678, 680, 708, 768
Lehigh & Wilkes-Barre Coal Co., Pa 138, 258, 348
Lehigh Zinc and Iron Co., Pa.... 404
Leiter Mine, Mont..... 78
Lenoir Car Co., Tenn..... 81
Leo Mine, Colo..... 145
Leonard's Pat. Rubber Substitute 793
Lepidonte 462
Lerch, F. 14
Le Roi Mg. Co., B. C.....19, 49, 79, 109, 145, 200, 230, 290, 319, 350, 379, 409, 499, 589, 619, 680, 710, 715, 740, 745, 769
Lessee Released from Royalties.. 609
Lessor, When Entitled to Injunction 130
Lester Mine, Mont..... 138
Levat, E. D., "Gold in French Guiana" 673
*Levasseur's Pat. Flexible Metallic Pipe 13
Leviathan Mg. Co., Cal.....375, 405
*Levoz's Pat. Casting Ladle..... 522
*Levoz's Pat. Converter 643
*Levy's Pat. Ingot Pouring..... 553
Lewes' Pat. Gas Producer..... 793
Lewis, James & Son, Liverpool, and Electrolytic Copper Refining 1
Lewis Placer Co., Oregon..... 437
Lewis, William H..... 374
Lewisohn, Jesse 764
Lexington Hill, S. Dak..... 168
Leyner Rock Drill 224
*Leyner's Pat. Air Compressor Valve 403
*Leyner's Pat. Rock Drill.....283, 703
Lexington Mg. Co., Mont..... 648
Liability of Company 251
Liability of Company for Act of Superintendent 609
Libbey Creek Placers, Mont..... 17
Libby, Harry 134
*Libby's Pat. Air Compressor Governor 642
Liberty Bell Gold Mg. Co., Colo. 106, 316, 647, 796
Liberty Mine, B. C..... 79
Lidgerwood Mfg. Co., N. Y....74, 344, 585
Lidner, P. G..... 434
Lien on Oil Well for Supplies.... 371
Lightening Creek, B. C..... 230
Light Through Glass 306
Light Mantle Minerals 384
Lightner Mine, Cal 375
*Lignite Deposits, South America 217
Lignite Mining in Dalmatia 728
Lignite Mining in the Tyrol..... 756
Lillian Mine, Cal..... 616
Lillian Mine, Colo.....286, 376, 616
Lillie Gold Mg. Co., Colo..46, 196, 316, 405, 415, 436, 496, 522, 585
Lillie Mg. Co., Colo..... 205
*Lillooet River, British Columbia 515
Lillooet River, British Columbia, Prospecting on 62

Lillooet River and Tributaries, B. C 9
Lily May Mine, B. C..... 769
Lily Mine, Wash..... 709
Lime, Alabama 694
*Lime and Cement Grinder, Duryee's Pat 433
*Lime Kiln, Wingard's Pat..... 463
Limestone, Alabama 694
Limpensel Mine, Cal.....15, 135
Lincoln Iron Mine, Mich..... 526
Lincoln Mine, Cal.....45, 315, 405, 525, 585
Lincoln Mine, Mont..... 108
Linde's Pat. Electrolytic Metal Separation 523
Linde's Pat. Electrolytic Separation of Nickel 613
Lindgren, Waldimar 284
Lindheim & Co., Texas..... 108
Lindsey, James G..... 704
Link Belt Machinery Co., Chicago 194, 374
*Link Belt Machinery Co., Coal Loading Machinery 700
*Link's Pat. Centrifugal Separator 552
"Linseed Oil and Varnish Manufacture" 62
Lippencott, A. C..... 134
Lippincott Steam Specialty Co., N. Y 434
Liquid Carbonic Acid Co., N. J.... 195
Liquid Fuel in the British Navy.. 760
Liquids, Purifying, Milligan's Pat 703
"Liquor Problem" 393
Lithographic Stone, Kentucky..... 407
Litofuge Mfg. Co., Pa..... 465
Little American Gold Mine, Minn. 379
Little Annie Mine, Colo..... 467
Little Blue Fraction, S. Dak..318, 438
Little Bob Mg. Co., Colo..226, 256, 376, 496, 646
Little Bonanza Mine, Mont..... 198
Little Butte Mg. Co., Cal..163, 195, 345, 435, 495, 672, 795
Little Cholame Valley Oil Field, Cal..... 405
Little Circle Mg. Co., Mo..... 617
Little Coal River Railroad Co., W. Va 79
Little Cove Gold Mg. Co., Wash. 229, 469, 589, 709, 739
Little Dora Mill, Colo..... 256
Little Dorrit Mine, Colo..... 256
Little Elba Oil Field, O..... 258
Little Ellen Mine, Colo..... 616
Little Jessie Mine, Ariz.....435, 555
Little Joe Mine, Mo..... 107
Little, John C., Calculating Value of Ore Reserves 633
Little Katie Mine, Mont..... 47
Little Mary Mine, Colo..... 227
Little Maud Mine, Colo....256, 406, 677, 706
Little Nell Mg. Co., Mont..... 77
Little Pearl Mine, Colo..... 646
Little Pittsburg Coal Mine, Mo.. 527
Little Pittsburg Mine, S. Dak... 438
Little Pittsburg Mg. Co., Utah 499, 685
Little Queen Mine, Cal..... 375
Little Richmond Mine, Colo..... 616
Little Schuylkill Navigation, Railroad & Coal Co..... 805
Little Warrior Coal Mine, Ala.... 500
Littleboy's Pat. Coke Oven..... 163
Lituya Bay Coal, Alaska..... 255
Lituya Bay Gold Placer Mg. Co., Alaska 15
Live Oak Copper Mg. Co., Ariz.. 15
Live Oak Mg. Mine, Cal..... 105
Liverpool Chemical Market..Weekly
Liverpool Mine, Mont....17, 77, 138, 377, 587
Livingston Coal Co., Mont....168, 377
Lizzie G. Mine, Colo.....136, 766
Lizzie Mine, S. Dak.....378, 588
*Lixiviation Apparatus, Williams' Pat 253
*Ljundberg Charcoal Kiln 309
*Loader for Tramways, Painter's Pat 613
*Loading Machine, Hulett's Pat. 103
Lobb & Sons Slate Quarry, Pa. 199, 258
Locator Need Not Be Discoverer 550
Lockhart's Pat. Separator 253
Lockwood's Pat. Amalgamator... 373
Locomotive, the Largest 604
Locomotives, American, for England 751
Locomotives, Oil Fuel for..... 668
Lode Star Gold Mg. & Dev. Co., B. C 350
Lode and Vein 550
Logan Mine, Colo.....166, 585
Lombard Mill, Colo 346
Lombard Mine, Colo 406
Lombardy Mg. Co., B. C..... 79
London & California Gold Mg. Co 595
London Copper Market.....Weekly
London Galley Mine, Ariz..... 345
London & Globe Co..... 565
London & Globe Finance Corporation 415
London & Hamburg Mg. Co., W. A 589
London Investments 423
London Mine, Mont..... 77
London Mining Directory..... 303
London Stock Market and Prices Weekly
Londonderry Iron Co., Nova Scotia 104
Lone Pine Gold Mg. Co., Wash. 229, 709
Lone Pine Mine, Cal..... 375
Lone Star Mine, Idaho..... 647
Lone Star Mine, N. M.....378, 587
Lonergan & Calkins' Pat. Assay Furnace 253
Lonergan's Pat. Ore Treating Machinery 673
Longacre Coal Co., W. Va..... —
Longfellow Mine, Cal.....196, 766
"Longitudes, Bureau of, Annual for 1899" 753
Longmaid, John, Cyanide Poisoning 363, 783
Longwy Steel Co., France..... 415
Loomis Mercantile Fuel Co., Mo. 527
Lorain Blast Furnace Plant..... 187
Lord, Elliot 74
*Lord's Pat. Concentrator 553
Loring Brothers Mill, Utah 48
Loring, Major Alonzo 764
Lorne Group, B. C..... 740
Los Angeles Mine, Colo..... 75
Lost Fox Mine, Cal..... 136
Lost Josephine Mg. Co., Utah.... 619
Lost Lode, Wash..... 169
*Losure's Pat. Gas Separation from Oil 283
Lotus Mine, Colo..... 677
Lucy Mine, Colo..... 677
Louden & Gallen Mine, Ariz..... 195
Louise Mine, Colo..... 346
*Louis, H., Strength of Pit Props 517
Louis' Pat. Hoist 462
Louisiana, Clays 456
Louisiana Mine, Colo..... 316
Louisville Mine, Colo.....106, 406, 467
Louisville Phosphate Co., Tenn... 528
Love Creek Coal Mine, Oregon.... 347
Lovedale Coal Company, Pa..... 618
Low, A. P., "Labrador Peninsula" 453, 483
Lowdon & George Mine, Cal..... 315
Lowe, Henry P..... 554
Lowell Institute, Boston 554
Lower Mammoth Mg. Co., Utah 139, 229, 558
Lowthian, John 314
Loyal Lee Mine, Cal..... 525
Luckie-Duckie Mine, Colo..... 136
Lucky Boy Mine, Idaho....227, 406, 706, 766
Lucky Boy Mine, S. Dak..... 378
Lucky Guss Mine, Colo....166, 316, 616, 766
Lucy Iron Mine, Mich..... 137
Luermann, Fritz 644
Lumber Seasoning by Electricity 756
Luminous Composition, Sysoyeff's Pat 102
Lump Gulch Placers, Mont..... 17
Lumpkin Gold Mg. Co., Ga..... 376
Lundbohn, H., "Iron Ore Fields of Northern Sweden" 753
*Lundell's Pat. Gas Turbine..... 642
*Lundy's Pat. Straightening Machine 493
Lunkenheimer Co., O..... 435
Luxton's Pat. Electrolytic Diaphragm 313
Luzerne Mine, Utah 169
Lyman, D. B..... 284
Lyman, Joseph 374
Lynch, John C..... 704
Lyne, H. 524
Lynn Creek Lead Mines, Mo..... 167
Lynx Creek Mine, Ariz..... 405
Lyon's Pat. Diamond Polishing Tool 733

M

Maas' Pat. Electric Battery..... 762
Maastricht, Holland, Subterranean Quarries 631
Mab Mg. Co., Colo.....46, 75, 106, 256, 316, 526, 616
McAdam's Pat. Aluminum Alloy. 433
McAllister, Robert 284
McArthur, J. B..... 434
MacArthur, J. S..... 614
Macbeth, James, & Co., N. Y..... 765
McCabe Mine, Ariz 405
McCallie, S. W., "Report on Georgia Gold Deposits" 753
McCalmont Oil Co., W. Va..... 48
McCann, P. 674, 794
McCarthy, C. C..... 134
McClay, David 644
McClure Coke Co., Pa..... 678
McCode Chemical Co., Ill..... 104
McCrae, L. T., Co., Kas..... 137
McCreight & Hardy Mine, Cal.... 15
McCullagh Mg. Co., Mo..... 288
McCulloch's Pat. Rock Drill..... 433
McDonald, Alexander 194
McDonald, Capt. 644
McDonald, John Q.....284, 374, 554
McDonald Oil Well, Ind..... 257
*McDonald's Pat. Casting Ingots 313
McElfresh, G. A..... 644
McGee, James 704
McGee, W. J..... 524
McGill University Mining and Chemistry Building 760
McGill University, Montreal 524
McGowan's Pat. Carburetor..... 103
Machine Coal Mining in West Virginia 394
McHugh Mg. Co., S. Dak..... 768
McIlvain-Spiegel Co., O..... 14
MacKay, H. S.....224, 314
McKay, John W..... 524
*McKelvey's Pat. Amalgamator.. 643
McKenna, A. G., Analysis of Ferro-Tungsten 607
*McKenna's Pat. Steel Rail Mill. 223
McKenna Steel Working Co., Mo. 374
Mackey Burroughs Mine, Colo.... 46
*Mackle's Pat. Dredge 553
McKinley Gold Mg. Co., Utah 679, 739
McKinney Mine, Cal..... 495
Mack Mine, Cal..... 766
Mack's Pat. Well Drilling Screw. 372
*Maclay's Pat. Amalgamator 733
Macleod & Clark, O..... 465
McMurray, Robert 44
McMaster, J. B., "Topographical Surveying" 543
*McMurtry's Pat. Rolling Mill.... 223
Macnab's Pat. Tamping for Blasts 193
*McNeill, W., Filter Press Treatment of Slimes 787
*McNulty's Pat. Ore Treatment.. 703
McNutt Placer, Idaho 526
McPhee, W. N..... 194
McPherson, W. D., "Law of Mines in Canada" 332
McVichie, Duncan 464
Madden, William 164
Maddin, T. 344
Maderra, Hill & Co., Pa..... 708
Madisonian Mine, Mont.....527, 587
Mad Mule Mine, Cal..... 255
Madrugada Mine, Mexico 20
Magalia Mine, Cal..... 795
Magnesite in India 669
Magnesite, Turkey 636
Magnetic Concentrator, Edison's Pat 343
Magnetic Instruments Exploring for Iron Ore 337
*Magnetic Lamp Holder 551
*Magnetic Separator, Crean's Pat. 193
Magnetic Separator, Kreuser's Pat 613
*Magnetic Separator, Monell's Pat 403
Magnetic Separator, Russian 244
Magnetism of Iron Ore..... 634
Maguire Mine, Ariz..... 435
"Magyarorszag Kozgazdasagi es Kozmuvelodesi Allapota Ezereves Fennallasakor es Az 1896". 423
Mahala Mg. Co., Colo.....197, 316, 616
Mahler's Pat. Incandescent Lighting 103
Mahoney, J. J..... 404
Mahoning Iron Co., Minn.....497, 526
Maid of Athens Mine, Colo....226, 376
Maid of Erin Silver Mg. Co., Colo. 46, 586, 796
Maine, Clay Industry 161
Maine Slate Quarry and English Syndicate 441
Main Trunk Mine, Colo..... 466
"Maize, Composition of"..... 154
Majestic Gold Mg. Co., Mont..... 407
Makita, T..... 104
Malacate Mines, Mexico 110
Maloney Property, S. Dak..... 679
Malvern Mine, Utah 109
Mammoth-Garfield Mine, Cal..... 795
Mammoth Gold Mg. Co., Ariz..75, 405, 795
Mammoth Gold Mg. Co., Mont. 17, 317
Mammoth Mine, Cal..... 165
Mammoth Mg. Co., B. C..... 79
Mammoth Mg. Co., Idaho.....136, 166, 467
Mammoth Mg. Co., Utah.....169, 679
Manchuria, Gold Mining..... 391
Manganese from Bog Ore..... 94
Manganese Ore 732
Manganese Ore, Austria 544
Manganese Ore, Brazil 65
Manganese Ore in the Caucasus. 485
Manganese Ore, Japan 338
Manganese Ore, Spain 574
Manhattan Patent Concentrator. 703
Manjak, Barbadoes 790
Manlove Treasure Mine, Cal..... 345
Mannesmann Brothers' Tube Works, Ill 285
Mannheim, P. A. L..... 284
*Mann's Pat. Sand Pump..... 433
Mansfield Iron Mine, Mich..... 287
Manti Coal Mg. Co., Utah..... 319
Mantle Mine, Mont..... 797
"Manufacturers' Code" 183
Manufactures, Exports 61, 242
Manzanetta Bar, Cal..... 375
Marble Flour 311
Marble Slate 4
March & Co., Cal..... 225
March Mg. Co., Mo..... 107
Marcus Mine, Ariz..... 225
Mardin, E. M., Iron Amalgam.... 393
*Margesin's Pat. Cable Tramway 313
Marguerite Gold Mg. Co., B. C... 79
Marinette Mg. Co., Colo..... 616
Marietta & Stillwagon Coal Co., Pa 198, 708
"Marine Rundschau" 303
Marino's Pat. Electrolytic Bath.. 163
Marion Copper Co., Va..... 93
Marion County Coal Mines, Ala.. 740
Marion Malleable Iron Works, Indiana 284
Mariposa Grant, Cal 676
Maraeen Copper Co., Ariz..... 774
Markle & Co., Pa..... 437
Marquette Iron Ore Shipments, Mich 706, 737
"Marquette, Mich., Iron and Steel Manufacture" 363
Marsac Mill, Utah 48
Marshall Basin Mines Co., Colo.. 647
Marshall Mine, N. M..... 468
Marshall Stamp Mill 745
Marsh, Prof. O. C..... 74
Martha Washington Mine, Utah 229, 469
Martha W. Mine, Mont 797
Martinette's Pat. Carburetor 583
*Martinette's Pat. Gas Making from Oil 433
Martin's Pat. Miner's Knife 643
Mary McKinney Mg. Co., Colo. 15, 75, 405, 436, 706
Mary Wynne Mine, Colo..... 75
Maryland Mine, Cal 496
Maryland Steel Co. Md..... 134
Mascot Mine, B. C..... 769
Mascot Mg. & Milling Co., Idaho 647
Mashonaland Gold Mines 475
Mason, Henry 284
Mason's Pat. Conveyor 673
Massachusetts Building and Road Stones 336
"Massachusetts, Census of 1895". 723
"Massachusetts, Census of Manufactures" 543
Massachusetts Clays and Clay Industry 245, 301
Massachusetts Hill, Cal..... 15
Massachusetts Institute of Technology 584, 794
"Massachusetts State Board of Health Report" 603
"Massachusetts, Statistics of Manufactures" 453
Mass. Con. Copper Co., Mich..... 586
Masters' Sons Slate Quarry, Pa. 199, 468, 648, 738
Matabele Gold Reefs and the States Co., Africa..... 505
Matches, New Compound for..... 634
*Mather & Snyder's Pat. Stamp Mill 703
Mathiot, Adrian 74
Matoa Gold Mg. Co., Colo..46, 255, 405, 736
Matsubara, T. 104, 314
Mattapan Mg. Co., Mich..... 76
Mattele Bitumen Deposit, Cal..... 466
Mattie May Mine, Colo..... 586
Maule Coal Mine, Ind..... 586
*Maxwell Colliery, Pa., Hoisting Engine 491
Maxwell, John M..... 704
Maxwell Mine, Utah.....109, 199
Mayflower Mine, Colo.....16, 226, 315, 676
May Flower Mine, Wash..... 799
Mayflower Mg. Co., B. C..... 559
*May Jig 249
May, W. A..... 614
Maynard, George W..... 734
Mayne, A. H..... 314
Mazeppa Mine, Cal.....105, 345, 466
Meacham, H. B..... 581
Meachim Hill, Cal..... 615
Meade Gold Mg. Co., Cal..... 345
Mead, John A., & Co., N. Y..... 105
Meadow Mg. Co., Mich...407, 467, 526
Meagher, James F..... 704
Means & Fulton Iron Works, Ala. 471
Means, J. H..... 464
"Mechanical Draft for Steam Boilers" 154
Mechanics' Lien for Colliery Supplies 521
Medean Mine, Cal 645
"Mediterranean Railroad Company Construction".....243, 663
Meeker-Pittsburg Mine, Colo..376, 556
Meetings of Mining Companies Weekly
*Mehner's Pat. Ammonia Production 193
*Meissner Electric Rock Drill.... 759
Meister's Pat. Sulphur Burning.. 523
Melones Con. Mine, Cal.....165, 405
Melones Mine, Cal., Tunneling at 758
*Meltzer's Pat. Ball Mill..... 223
Mensur, B. 44
Merced Gold Mg. Co., Cal.....495, 555
Mercer Co. Coal Miner's Strike, Pa. 108
Merchants' Coal Co., W. Va.....79, 766
Mercur District, Utah..... 469
Mercur Mg. Co., Utah..25, 169, 235, 379, 409, 438, 505, 559, 565, 589, 595, 739
Mercury (See Quicksilver).
Meredith, F. M..... 704
Merivale, W., Barbadoes Manjak 790
Merrill, Charles...134, 254, 314, 644, 704
Merrill, Dr. F. J. H..... 764
Merrill Pneumatic Pump Co., N. J. 435, 644
Merrill's Pat. Clay Press..... 192
Merrill's Pat. Stoneware Compound 643
Merritt Estate, California..... 676
Merry, H. E. D..... 794
*Mershon, Ralph D., Colorado Electric Power Plant..... 700
*Mertes' Pat. Metal Ingot Reducing 553
Merton Mine, Cal..... 435
Mesabi Iron Ores, Drying.....453, 661
Meserve, Isaac H..... 434
Mesta Machine Co., Pa..... 735
Metal Casting, Schmidt's Pat.... 553
Metals, Daily Prices .....Weekly
Metal, Electric Conductivity..... 333
Metal Extraction from Oxides, Ascherman's Pat..... 343
Metal Extraction, Sinding-Larsen's Pat..... 133
Metal Imports and Exports..Weekly
*Metal Ingot Reducing, Mertes' Pat. 553
Metal Plates, Electrical Resistance 244
*Metal Relief Making, Rieder's Pat. 163
Metal Tube Coating, Wright's Pat. 793
"Metallgesellschaft, Statistical Compilation" 423
Metallic Coating of Surfaces, Thomas' Pat. 432
*Metallic Fume Saving, Bartlett & Petraeus' Pat..... 673
Metallic Sulphides, Richards & Roeper's Pat. 193
"Metallurgical Engineering on the Rand" 332, 333
*Metallurgical Furnace, Pietraschewski's Pat..... 672
Metallurgical Research, Prizes for 154
Metallurgical Works, Waste Gases 423
Metals, Minor, Demand for..... 595
Metals, Photochromy of..... 513
Metargon 41
Metaux, Societe des..... 595
Meteorite, Platinum in..... 514
Metric System..... 331, 542
Metric System in Great Britain.. 421
"Metric System of Weights and Measures" 573, 693

Mexican Gold and Silver Recovery Co. 49, 260
Mexican Mg. Co., Nev. 767
Mexico, Copper Discovery 530
"Mexico Geological Institute" 303
Mexico Geological and Mining [illegible]ography" 303
Mexico, Mining Exports 440
Mexico, Mining in Sonora 110
Mexico, Specie Imports from..83, 473
Mexico Stock Quotations .....Weekly
Meyer-Clarke-Rowe Mines Co., Mo. 704
Meyer, Richard, "Year-Book of Chemistry, 1897" 93
*Meyer's Pat. Ingot Mold 192
Miami Mg. Co., Colo. 466
Mica 432, 672, 792
Mica in India 606
Mica Insulator Co., N. Y. 374
Mica, New Zealand 341
Mica for Safety Lamps 483, 791
Mica, Scrap 132
Mica, South Dakota 78
Michael Davitt Lode Case, Mont. 527
Michigan Alkali Co 564
Michigan Boy Mine, Colo. 46
Michigan Brick Industry 221
"Michigan, Coal Fields of Saginaw" 273
Michigan College of Mines....314, 584
Michigan Copper Production 557
"Michigan Mines and Mineral Statistics" 153
Michigan, Mining Accidents in..37, 497
Michigan Mg. Co., Mich..467, 647, 706
Michigan & Montana Mg. Co., Mont. 228, 347
Michigan Portland Cement Co., Mich. 104
Michigan School of Mines 704
Michipicoten Island, Ontario..586, 605
Michipicoten Mining District 260
Mickley, Edwin 14
Midas Mine, Cal. 315, 496
Midas Mg. Co., Utah 438
Middlebrook, A. 735
Middlemarch Copper Mg. Co., Ariz. 525
Midget Mg. Co., Colo. 45
Midgley & Fink's Pat. Bralzing Metals 493
Midland Oil Co., Texas 18
Midland Steel Co., Ind. 194
Midland Terminal Railway, Colo. 685
Mid Moonta Copper Mines, S. Australia 775
Midnight-Bower Mg. Co., Utah.. 799
Midvale Steel Co., Pa. 195, 434
Mikado Mg. Co., Ont..330, 379, 409, 439, 620, 754
Mike & Starr Mine, Colo. 526
Milkmaid Mine, Cal. 436
Mill Construction and Fires 692
Miller & Brown Iron Mine, Minn. 257
Miller Coal Mine, Wyo. 619
Miller, E. H., Proposed Mining Jubilee 604
Miller, G. A. 464
Miller, John A., "Handbook for Miner, Prospector and Mining Investor" 723
Miller & May Queen Group, Colo. 256
Miller River District, Wash. 260
Miller, W. J. 134
*Miller's Pat. Blast Furnace Dump 792
*Miller's Pat. Dryer 13
Miller's Pat. Excavator 312
Milligan's Pat. Purifying Liquids 703
Millsite Claim 221
Millzner, John H. 674
Milner, John T. 254
Milner Mg. Co., Ala. 255
Milner, S. B. 134
Minah Mine, Mont. 138, 767
Minas Mexicana, Mexico 49
Minck's Pat. Crucible Furnace.... 253
Mine Accidents, Causes 42
Mine Boss, West Virgina 340
*Mine Car Axle, Anaconda 161
*Mine Car Axle, Tinklepaugh & Conwell's Pat. 702
*Mine Car Wheel, Watt's Pat.... 553
Mine Cost Accounts 362
*Mine Door, Hurford's Pat. 762
*Mine Door, Shallenberger's Pat. 613
*Mine Gate, Bowman's Pat....223, 252, 522, 643
Mine Haulage, Anthracite 611
Mine Safety Law, Montana 288
Mine Shaft, Lightening in 724
Mine Signals, Electric 693
Mine & Smelter Supply Co., Colo., 614, 735, 794
Mine Timbers, Acacia for 604
Mine Timbers, Hasselman Process for Preserving 758
*Mine Trap Door, O'Brien's Pat. 313
Mineral Farm Mg. Co., Colo. 436
Mineral Fuel, Examination by Roentgen Rays 11
Mineral Hill Mg. Co., Idaho 586
"Mineral Industry," Criticism of, 272, 422
"Mineral Industry," Gold Medal for 31
Mineral Lands on Indian Reservation 580
Mineral Locations in British Columbia 519
Mineral Mg. Co. 768
*Mineral Press, White 431
"Mineral Production in India in 1897" 723
Mineral Products Co., New Brunswick 94
Mineral Railroad & Mg. Co., Pa., 348, 378
Mineral Ridge Mg. Co., Pa. 678
Mineral Rights in Russia 241
Mineralogical Mistake 215
"Mineralogy, Determinative" 513
"Mineralogy, Textbook of" 423
Minerals and Mining at Omaha Exposition 695
Minerals, Prices .....Weekly
"Miner, Prospector and Mining Investor," Handbook for 723
Miners' Basin, Utah 348
*Miner's Candle Stick, Nissen's Pat. 552
Miners' International Congress... 247
Miner's Knife, Martin's Pat. 643
Miner's Lamp, Ackroyd & Best's Pat. 703
*Miner's Lamp, Best's Pat. 373
*Miner's Lamp Igniter, Wolf's Pat. 523
Miners' Lamps, Central Draft.... 155
Miner's Lamp, Wood's Pat. 43
Minersville Mine, Cal. 345
Mines Development Trust and Guarantee Co., B. C. 319
Mines of Ethiopia 250
"Mines and Quarries of United Kingdom" 333
Mines at the Trans-Mississippi Exposition 91
Mining Accidents in Michigan..37, 497
Mining Appliances, Protected 158
Mining Claim, Relocation 550
Mining Claim and Townsite Patent 761
Mining Claims of Property in Nevada 580
Mining Claims on Public Lands.. 191
Mining Claims, Quieting Title... 580
Mining Claims, Rights and Remedies of Owners 9
Mining Claims and Water Rights 191
Mining Companies, Construction Accounts 124
Mining Companies, Sinking Funds for 34
Mining Companies, Statistics, Tables ..... Weekly
Mining Congress, International.. 1
*Mining Dredge, Stead's Pat..... 763
Mining Engineer 642
Mining Engineers, American Institute, Buffalo Meeting.484, 518, 546
Mining Engineers' "Institute" or "Institution" 481
Mining Engineers, Training 282
Mining Exports, Mexico 440
Mining Exposition, Western Australia 661, 668
Mining Jubilee, Proposed 604
Mining Labor Accidents in Great Britain 518
Mining Land, Acquiring Title... 158
Mining Law, Pennsylvania 158
Mining Law in Rhodesia 541
Mining Laws, Western Australia 349, 800
Mining Lease, Construction 521
*Mining Machine, Halbert's Pat. 133
Mining Machinery in Russia.... 639
*Mining Machine Valve, Ball & Officer's Pat. 762
Mining in New Caledonia 252
Mining in Ontario 754
Mining Ore Bodies of Uniform Grade 548
Mining Partnership 580
Mining Partnerships in Ohio..... 609
Mining Property, Abandonment of 38
Mining Property, Hostile Possession 580
Mining Property, Taxes on 191
Mining Regulations, British Columbia 619
Mining Report, Form of 34
Mining Schools in New Zealand. 462
Mining Stock Dealings, Taxes on 91
Mining Stockholders in Montana, Liability 131
Mining Stock, Liability of Owner 580
Mining Stock Markets: Boston, London, New York, Paris, Salt Lake, San Francisco .....Weekly
Mining Stocks, War Taxes on.... 115
Mining Taxes, Transvaal 691
"Mining Terms, Language Dictionary" 663
*Mining Timbers, Strength of.... 517
Mining Town, Wealth in 432
Mining under Water, Scotland.. 4
Minneapolis Engineers' Club..... 674
Minnesota Iron Co.....77, 167, 198, 227 257, 287, 317, 437, 497, 527, 617, 647, 707, 737
Minnesota, Iron Miners' Wages.. 737
Minnesota Iron Ore Shipments.. 677
Minnesota Iron & Steel Co., Minn. 495
Minnesota Mine Taxes 197
Minnesota Railroad Rates 167
Minnesota Shipbuilding Co.,Minn. 707
Minnesota University 344
Minnie Mine, Colo. 46
*Mino & Day's Pat. Blasting Tool 373
Minona Mg. Co., Mich. 497
Minook Creek, Alaska 135
Minook District, Alaska 465
Minor & Bros., Ala. 614
Minor, James 374
Minors, Employing 521
Miocene Mine, N. C. 230, 439
Mississippi Bar Mine, Cal. 466
Mississippi River Coal Trade.... 710
Missoula Placer Mg. Co., Mont.. 707
Missouri Central Mg. Co., Mo.... 47
Missouri, Clay Resources 426
Missouri Coal Mines 641
Missouri Lead and Zinc Co., Mo. 77
Missouri Mine, Colo. 586
Missouri School of Mines 674
"Missouri State Mine Inspector, Report" 633
Mitchell, L. H. 404
Mitchell Mine, Colo. 316, 677
Mitchell, M. L., St. Louis 614
Mitchell & Tranter Co., O. 44
*Mitchell's Pat. Compressed Air Water Elevator 583
Mitis Casting Patent 548
Mitzui Coal Mine, Japan 332
Mixer, C. T. 524
*Mixer, C. T., Gold in Nicaragua, 125, 513
*Mixer for Steel Furnace, Jones. 399
Mixing Machine, Dundon's Pat.. 523
Mixing Machine, Ferris' Pat..... 552
M. N. Fraction, Colo. 226
Mobile Gold Mg. Co., Colo....496, 796
Mocking Bird Mine, Mont.....77, 797
Modoc Iron Mine, Ont. 754
Modoc Mine, Colo. 496
Modstock Gold Mg. Co., N. S..598, 649
Moffat, David 104, 284
*Moffat's Pat. Crusher 433
Mogul Tunnel, Colo....75, 405, 525, 705
Mohave County, Ariz. 156
Mohawk Copper Co., Mich....586, 647
Mohawk Gold Mg. Co., Ariz..... 165
Mohawk Mg. Co., Mo. 167, 228
Mohican Mine, Colo. 346
Moline Mg. Co., Colo. 616
Mollie Bawn Mg. Co., Utah..... 558
Mollie Gibson Mg. Co., Colo..... 46
Molson, Charles A. 104, 344, 464
*Molten Metal Exhauster, Wainwright's Pat. 43
Molybdenite 42, 192, 762, 792
Molybdenum 552
Molybdenum and Tungsten Steel 430
"Molybdenum and Vanadium Occurrence in U. S." 363
Monongahela Valley Coal Mine.. 590
Monarch Mine, Colo. 76
Monazite in Brazil 756
Monazite Production in North Carolina 543
Mond Process of Nickel Extraction 784
*Mond's Pat. Nickel from Nickel Carbonyl 103
*Monell's Pat. Magnetic Separator 403
Monell, William, Clay Industry of Maine 161
Monessen Steel Co., Pa. 374
Money in Circulation, France.... 415
Money, International, of Uniform Value 453
Money Maker Mine, Mexico..... 440
Money in U. S...83, 173, 353, 443, 592, 714
Monitor Coal Co., Mich. 227, 647
Monitor Mine, Mich. 467, 737
Monitor Mg. Co., Mont....47, 347, 498
Monitor Tunnel, Mont. 258, 738
Monolith Mg. Co., Idaho 287
Montana & Arizona Con. Copper Mg. Co. 765, 775
Montana City Mine, Mont. 797
Montana Coal Mines 805
Montana Copper Co., Mont. 707
Montana Copper Consolidation... 421
Montana & Idaho Mining Co., Idaho 557
Montana, Liability of Holders of Mining Stock 131
Montana Mine, Colo. 256
Montana Mine, Madison County, Mont 377
Montana Mine Safety Law 288
Montana Mineral Lead Development Co., Mont. 17
Montana Mg. Co., Mont..108, 228, 498, 587, 625, 647, 767
Montana Mining Company, Report 698
Montana Ore Purchasing Co., Mont...108, 228, 258, 288, 468, 527, 594, 738
Montana Power Co., Mont. 17
Montana, Rare Minerals in..... 726
Montana, Rights and Liabilities in 38
Montana School of Mines 404
*Montana, Slimes Treatment in.. 757
Montana Sm. & Mg. Co., Mont.... 407
Montana Society of Engineers, 14, 614, 734, 764, 794
Monte Carlo Mine, Colo. 736
Monte Cristo District, Wash..... 260
Monte Cristo Mine, B. C...19, 500, 619
Monte Cristo Mine, Wash. 109
Monte Cristo Mg. Co., N. M..... 648
Monte del Rey Mg. Co., Utah... 379
Monterey Smelting Works, Mexico 20, 200
Montezuma & Cleveland Mg. Co., Mexico 49
Montezuma Group, Colo. 256
Montezuma Mill, S. Dak. 738
Montezuma Mg. & Milling Co., N. M. 708
Montgomery Coal Mines, W. Va. 619
Montgomery Mine, Colo. 766
*Montgomery's Pat. Pulverizer.. 252
Montreal Gold Mg. Co., Colo., 46, 646, 685
Montreal Iron Mine, Wis. 319
Montreal Mine, Utah 408
Montreal Mg. Co., Colo. 405
Monument to Colorado Gold Discovery, Proposed 361
Monument Gold Mg. Co., Colo.715, 736
Monument Mine, Colo. 15, 436
*Moodie's Pat. Leaching Apparatus 223
Moodie's Pat. Leaching Tank... 133
Mooers, F. M., Randsburg District, Cal. 753
Moon-Anchor Mg. Co., Colo...136, 166, 226, 525, 736
Moore Brick Co., Pa. 555
Moore, Charles J. 104
Moore Process Co., Maine..... 254
Moore, Schuyler S. 704
Moore Smelter, Colo. 256, 616
Moore's Pat. Electric Lighting... 643
Moore's Pat. Pump 253
Moorman & MacFarlane, New Mining District of Arizona..... 513
Moose Lake District, Mont. 138
Moose Mine, Colo. 46
Moran Creek Placer, Mont. 198
*Morcom's Pat. Slag Truck..... 13
Morgan Engineering Co., O. 494
Morning Glory Mine, Ariz. 45
Morning Mg. Co., Idaho....16, 256, 316, 376
Morning Star Mine, Cal. 405
Morning Star Mg. Co., Idaho..166, 467, 677, 736
Morongo Mine, Cal. 705
Morrish, James 404, 584
Morrisdale Coal Co., Pa. 378
Morrison Pneumatic Pump..... 316
*Morse's Pat. Separator 72
Morton, J. S. 524
Morton Mfg. Co., Mich. 735
*Morton's Pat. Gold Saving..... 373
Mossot, Paul 644, 704
Moston Mine, Cal. 615
Moulton Mg. Co., Mont.....288, 468
Mound City Construction Co., Mo. 198
Mountain Beauty Gold Mg. Co., Colo. 556
Mountain Boomer Mine, Cal..... 705
Mountain Copper Co., Cal..165, 375, 385, 676
Mountain House Coal Mines Mont. 707
Mountain Lion Mine, Wash..229, 439, 709, 739
Mountain Maid Mine, Cal. 345
Mountain Mine, Sierra Co., Cal. 255
Mountain Quail Mine, Colo. 145
Mountain Rose Mine, Colo. 526
Mountain View Mg. Co., Utah... 558
Mountaineer Mine, Cal. 15, 375
Mt. Carbon Coal Co., W. Va.... 349
Mt. Diablo Mill & Mg. Co., Nev. 797
Mount Gaines Mine, Cal. 225
Mount Jefferson Mine, Cal.196, 525, 766
Mt. Lyell Mg. Co., Tasmania..49, 109, 205, 260, 349, 355, 469, 619, 709
Mt. Lyell Mg. Co., Tasmania, Report 70
Mt. McGregor Mine, Colo. 556
Mt. Morgan Gold Mg. Co., Queensland 49, 379, 619, 709
Mount Morgan Gold Mg. Co., Queensland, Report 301, 308
Mt. Morgan Mine, Queensland, Chlorination at 723
Mt. Pleasant Collieries, Pa. 558
Mt. Pleasant Mine, Cal. 435, 585
Mt. Pleasant Phosphate Co., Tenn. 528
Mt. Reuben Mine, Oregon 18
Mt. Shasta Mine, Cal. 286
Mt. Wilson Gold and Silver Mg. Co., Colo. 766
Movers, F. M. 494
Moyle Mine, Colo. 616
Mucklow, John 344
Mudd, Seeley W. 194
Muldoon Mine, Colo. 197
Mundy, J. S., N. J. 404
Munhall Coal Mines, Pa. 678
Munia Alaska Gold Mg. Co., Alaska 345
Muriatic Acid 552
Murphy's Pat. Stone Sawing Machine 253
Murphy, T. J. 584
Murray, R. H. 74
Muscovite Mine, Colo. 15
Music Mine, Oregon 258
Mussingbrod Mill, Mont. 737
Muter, John, "Analytical Chemistry" 393
Mutual Boiler Insurance Co., Mass. 74
Myers, R. V. 164
Myers, S. F. Co., N. Y. 615, 705
Myers, W. F. 434
*Mytinger's Pat. Ore Washer..... 763

N

Nabob Mine, Idaho 47
Nacosari Copper Mines, Mexico.. 559
Nadorite in Algeria 726
Naef's Pat. Roasting Furnace... 193
Nagel, W. G. & Co., O. 704
Nancy Hanks Mine, Mont. 437, 498
Nanticoke Mine, Colo. 136, 496, 586
Narragansett Lead and Zinc Co., Mo. 737
Narragansett Mg. Co., Mo.....198, 347
Nashville Gold Mg. Co., Cal..165, 255
Natal, Coal Production 4
Natal, Geological Survey of..... 730
National Fdy. & Pipe Co., Pa.... 104
National Lead Co.,, ... 685
National Mine, Cal. 646
National Mg. Co., Mexico 170
National Ore and Reduction Co., 512, 572, 601
National Paint Co., Utah 768
National Slate Co., Pa. 798
National Storage Co., Chicago.... 555
National Tube Works, Pa. 735
Natrona Mg. Co., Wyo. 200
Natural Gas, Contract for 670
Natural Gas, Indiana 47, 497
Natural Gas, Ontario 109
Natural Gas Privilege 460
Navasso Guano Co., N. C. 14, 74
Navassa Phosphate Company..... 54
Navy Coal Co., Wash. 78
Navy and Engineering 31
Naxos Emery 34
Nederland Mill, Colo. 225, 436
Neepawa Mg. Co., Ont. 379
Neill, James W. 464
Neilson Colliery, Pa. 528
Nellie Y. Cyanide Mill, Colo..... 676
*Nelson's Pat. Amalgamator..... 313
Nelson Tunnel, Colo. 556
Neon 41
Nernst, Dr., W., "Electro-Chemical Year-Book" 183
*Nernst Electric Light 700
*Nesmith's Pat. Blast Furnace... 553
*Nesmith's Pat. Blast Furnace Jacket 733
Nestmann's Pat. Wire Drawing Mill 673

Neuberger, A., "Calendar for Electrochemists" 513
Neumann, Rudolph 614
Neustadt, G. M. S., "Laboratory Manual of Inorganic Preparations" 363
Neustaedter, A. 464
Nevada Mg. Co., Nev. 108
*Nevius, J. Nelson, Hadley Gold Mill 275
New Brighton Glass Works, Pa.. 344
New Brunswick Mine, Cal. 676
New Caledonia, Mining in 252
New Caledonia Nickel Ore Exports 354
New Caledonia, Pearls in 550
New Central Coal Co., Md. 355
Newcomb, H. T., "Railroad and Other Rates" 303
*Newcomb's Pat. Air Pump 613
New Edgerton Mine, N. S. 20, 350
New Elkhorn Mg. Co., Colo. 557
New Elkhorn Mg. Co., Mont. 317
Newell, Thomas F. 74
New England Cripple Creek Gold Mg. Co., Colo. 796
New Erie Mg. Co., Utah 799
Newett, George A., "Michigan Mines and Mineral Statistics". 153
Newfoundland Coal 276
Newfoundland Coal Measures 800
Newfoundland, Copper 724
Newfoundland Copper Company.. 625
Newfoundland, Mineral Exports.. 724
Newfoundland, Petroleum 710
New Guinea, Gold Prospecting... 216
New Guinea Mining 19
Newhouse, Samuel 104, 524, 734, 764
Newhouse Tunnel, Colo. 315, 556
New Jersey Central Coal Prices. 320
"New Jersey Geological Survey, Report" 393, 603
New Jersey Zinc & Iron Co. 14
Newlands, J. A. R. 254
Newman, J. F. 764
Newmarket Mill, Colo. 585
New Mexico Placers 672
New Mexico, Wolframite in 726
New Mine Sapphire Syndicate, Mont 108, 138
New Monarch Mg. Co., Colo.. 106, 616
Newport Mine, Mich. 347, 526
Newport News Shipbuilding Co., Va 691
New River Con. Coal Co., W. Va. 410
Newsboy Mine, Mo. 678
"New South Wales, Annual Report of Department of Mines and Agriculture" 723
"New South Wales, Bismuth Ores" 633
"New South Wales, Gold Dredging" 513
"New South Wales, Paleontology" 633
"New South Wales, Report of Department of Mines" 393
"New South Wales, Report on Public Works" 322, 363, 423
"New South Wales Statistical Register" 154, 453, 633
New State Mine, Mont. 47
Newton Coal Mg. Co., Pa.. 348, 498, 618
Newton Machine Tool Works, Pa. 555
New Wales Hard Vein Slate Co., Pa. 648
New Waterford Natural Gas Well, O. 18
New Year Mine, Mont. 767
New York Academy of Sciences. 494
New York & Alaska Gold Exploration & Trading Co. 45
New York Bank Statements.. Weekly
New York Chemical Market.. Weekly
New York Coal Co., W. Va. 409
New York Coal Market ..... Weekly
New York Copper Market.... Weekly
New York Dredging Co. 285
New York Fertilizer Co. 14
"New York Geological Survey Bulletins" 33
New York & Honduras Rosario Mg. Co., Mexico 55
New York Industrial Exchange.. 804
New York Iron Market ..... Weekly
New York, Metal Imports and Exports ..... Weekly
New York Mill, Colo. 677
New York Mineralogical Club 44
New York Mining Exchange, Changes 685
New York Mining Exchange Election 445
New York Mining Exchange, Reorganization 804
New York, Prospecting in 132
New York, Scientists' Conventions in 724
New York State College of Forestry 314
New York Stock Market and Quotations ..... Weekly
New Zealand Coal Production... 486
New Zealand, Geological Survey. 457
New Zealand Gold Dredge 728
*New Zealand, Gold Dredging... 637
*New Zealand, Gold Ore Treatment 575
New Zealand Gold and Silver Exports 169, 289, 439, 740, 769
New Zealand Government Testing Plants 49
New Zealand, Mica 34
New Zealand, Mining Schools in 462
"New Zealand, Official Year-Book" 543
New Zealand, Quicksilver 79
"New Zealand, Report on Gold Dredging" 573
Niagara Mine, Cal. 496
Niagara Mine, Utah 379
Niagara Mg. Co., Idaho 586
Nicaragua Canal 611
*Nicaragua, Gold in 125
Nicaragua Gold Mine 529, 582
Nicaragua, Gold Mining in 513
Nicholas Francis C. 74, 614
*Nicholas, F. C., Coal Trade of South America 217
Nichols Chemical Co. 794
Nichols Pat. Punching and Shearing Machine 583
Nicholson, Frank 734
Nickel Coinage in France 11
Nickel and Copper Ores, Assaying 462
Nickel Exports, U. S. 204
Nickel Extraction, Mond's Process 784
Nickel Market and Prices.... Weekly
Nickel Mines, New, Ontario 754
*Nickel from Nickel Carbonyl, Mond's Pat. 103
Nickel, Ontario 335, 581
Nickel Ore, New Caledonia. 354
Nickel Plate Mine, B. C. 799
Nickel Production 162
Nickel, Societe le 745
Nickel in Tasmania 611
Nickel, Thermal Conductivity.... 4
Nicol, Andrew 194
Nighthawk Mine, Ariz. 165
Niles Augusta Mine, Colo. 76, 376
Niles Tool Works Co., O. 134
Nile, Utilizing Power of 694
Nimick, Alexander 764
Nisi Prius Leasing Co., Colo. 736
*Nissen's Pat. Miner's Candlestick 552
Nitrate Agreement 624
Nitrate Company Stocks 451
Nitrate Exports, Chile 534
Nitrate of Silver 712
Nitrate of Soda, European Deliveries 682
Nitrate of Soda, Foreign Statistics 741, 771
Nitrate of Soda Prices ..... Weekly
Nitrate of Soda, Stocks and Statistics 54, 171, 324, 444, 564, 711
Nitrogen in Coal Output 730
Nitze, H. B. C., "Gold Mining in North Carolina" 62, 273
*Nitze, H. B. C., Gold Placers of the Oural Mountains, Russia.... 305
Nixon Red Slate Quarrying Co., N. Y. 258
Nizi Prius Leasing Co., Colo. 406
.. M. Fraction, Colo. 406
*Noack & Grossman's Pat. Air Compressor 103
Noble Five Mg. Co., B. C. 559
..oble, William B. 734
Nolan Mine, Mexico 140
Non-Dividend Paying Mines, Tables ..... Weekly
Nonpareil Mine, Colo. 616
Noonday Mg. Co., Oregon 228
Nordberg Mfg. Co. 735
Nordenstrom, G., Magnetic Instruments in Exploring for Iron Ore 337
Nordenstrom, G., "Mineral Industry of Sweden" 3
Norman Iron Co., Min. 227
Norrie Iron Mine, Mich. 316, 526
North American Chemical Co., Mich. 76, 444
North American Chemical Co., N. J. 738
North American Coal Co., Pa.... 768
North American Exploration Co., Colo. 107, 316, 796
North American Gold Dredging Co., Colo. 766
North American Gold Dredging Co., Mont. 617
North American Gold Mg. & Dev. Co., Colo. 677
North American Transportation & Trading Co., Alaska 110, 495
North Bangor Slate Co., Pa.. 138, 288, 587
North Bloomfield Gold Mg. Co., Cal. 676, 765
North Boulder Mine, Mont. 797
"North Carolina, Clay Deposits". 33
North Carolina Coal & Coke Co., N. C. 198
North Carolina Coal Co., N. C... 168
"North Carolina Geological Survey, Bulletins" 62
"North Carolina Geological Survey, Bulletin of Gold Mining in North Carolina" 273
North Carolina, Monazite Production 543
North Carolina Talc Mg. Co., N. C. 378
North Chip Mine, Colo. 616
North Joplin Mg. Co., Mo. 108
North Mountain Mine, Nev. 527
North Mt. Lyell Co., Tasmania.. 589
North San Poil Mg. Co., Wash... 739
North Star Gold Mines Co., Cal.. 115
North Star Mine, B. C. 740
North Star Mine, S. Dak. 588
North Star Mg. Co., Cal. 555
North Star Mg. Co., Minn. 707
North Wisconsin Copper Mg. Co., Wis 169, 529
Northampton Hard Vein Slate Co., Pa. 138, 199
Northeast Kootenay Miners' Association 674
Northern Coal Mine, Colo. 75, 646
Northern Coal and Transportation Co., Mich. 377
Northern Light Mg. Co., Utah, 409, 438, 649, 679, 739
Northern Pacific Coal Co., Wash. 211
Northern Spy Mine, Utah 709
Northern Territories Mg. Co., S. Australia 205
Northfield Slate Quarry, Vt. 349
Northport District, B. C. 79
Northport Mg. & Sm. Co., B. C. 49
Northwestern Mg. & Exchange Co., Pa. 708, 740
Northwest Exploration Co., Ont.. 379
Northwest Gold Dredging Co., B. C 679
Norton Emery Wheel Co., Mass. 465
Norton, R. H. 794
Norwegian Mine, Cal. 225, 405
Notaway Mine, Colo. 677
Nova Scotia, Antimony Mine..... 49
"Nova Scotia, Geology of South-West" 453, 483
Nova Scotia, Gold Production.... 319
"Nova Scotia Ores, Gold, Lead and Copper" 332
Nova Scotia, Wolfram Deposits.. 649
Nowell Gold Mining Co., Alaska.. 12
No You Dont Mine, Utah 529, 739
Nugget Gulch Mg. Co., Mont. 618
Number Five Coal Mine, Ind. Ter. 497
Number Six Mine, Wash. 769
Nunez Ricardo, "Republic of Colombia" 243, 453
Nyssa Placer, Oregon 348

O

Oakland Mine, Utah 169
O-At-Ka Coal Mine, Mich. 287
Obalski, J., "Gold in Quebec". 303, 633
Oberegger's Pat. Coal Screen..... 433
*O'Brien's Pat. Mine Trap Door.. 313
Occidental Mg. Co., Colo. 287, 616
Occidental Mg. Co., Nev. 767
Ocean Coal Mine, Md. 346
Ocean View Quicksilver Mine, Cal. 466
Ocher 402
Odin Mine, Cal. 225, 795
Oest, Alfred 14
Oettingen, Prof. von 644
Ogalallah Mine, Colo. 646
Ogden & Chicago Mg. Co., Utah. 200
Ogden's Pat. Battery Zinc 222
Ogilvie, William, and London Promoters 752
Oglebay, Norton & Co. 645
*Ogle's Pat. Rock Drill 793
O'Hare's Pat. Crusher 312
Ohio Coal Mine Inspectors 108
Ohio, Gold Discoveries 527, 767
Ohio Gold Mines 631
Ohio Institute of Mining Engineers 14, 134
"Ohio Institute of Mining Engineers, Journal" 123
Ohio Iron & Steel Co., O. 704
Ohio Mine, Mont. 498
Ohio Mines in 1897. 306
Ohio Mg. Co., Minn. 227, 677
Ohio Mining Partnerships 609
Ohio Oil Co., O. 347
"Ohio Report on Rivers and Ground Waters" 663
Ohio and West Virginia Coal Competition 424
*Oil Burner, Ferron's Pat. 583
Oil Exports, U. S. ..75, 224, 374, 465, 615, 735
Oil Fuel for Locomotives 668
Oil and Gas Leases. 9, 310
*Oil Gas Manufacture, Bailey's Pat 162
Oil Producers' Association of Los Angeles, Cal. 315
Oil Production 105, 645
Oil Production, California 676
Oil Purification, Shively's Pat.... 643
*Oil Refining Apparatus, Henderson's Pat. 103
Oil Refining, Davidson & Hepburn's Pat. 673
Oil Run Ticket 310
Oil Statistics 255
*Oil Vaporizer, Phelp's Pat. 312
Oil Well Casing, Ottney's Pat.... 253
*Oil Well Fishing Tool, Green's Pat 733
*Oil Well Pump, Wright's Pat.... 703
Oil Well Supply Co., Pa. 134
*Oil Well Tool, Kaiser's Pat..... 703
Oil Well Tool, Thompson's Pat... 763
*Oil Well Tubing, Smith's Pat.... 13
Okanogan Free Gold Mine Co., B. C. 559, 799
O. K. Mining Co., Cal. 615
Old Age Mine, N. M. 228, 378
Old Bangor Slate Co., Pa.. 199, 587, 648
Old Boot Mine, Ariz. 466, 735
Old Colony Copper Co., Mich.... 736
Old Delabole Slate Co., Pa..... 378, 468, 708
Old Dominion Copper Co., Ariz.. 345, 495
Old East Bangor Slate Co., Pa.. 138
Old Glory Mine, Mont. 168
Old Home Mine, Cal. 405
Old Ironsides Mg. Co., B. C..... 559
Old Jordan & Galena Mg. Co., Utah 199, 349, 408, 469
Old Telegraph Mine, Utah 679
Olive Mine, Ontario 139, 320, 409
Oliver & Chester Mg. Co., Mo.... 678
Oliver Mg. Co., Mich. 706, 737
Oliver Mg. Co., Minn. 137, 167, 227, 257, 287, 317, 347, 437, 497, 498, 526, 527, 557, 586, 707
Oliver & Snyder, Pa. 465, 615
Ollie Mine, Colo. 556, 616
Olson Dredge, B. C. 230
Olympia Mountains, Washington 78
Omaha Con. Mg. Co., Cal. 585
Omaha Exposition 3, 91, 94
Omaha Exposition, Minerals and Mining at 695
Omaha Gold & Silver Mg. Co., Utah 48, 289, 319, 349
Omaha & Lone Jack Con. Mg. Co., Cal. 15
Omaha Mine, Cal. 496
Omaha Mg. Co., Utah 409
Omaha, Trans-Mississippi and International Exposition 3
Omega Mine, S. Dak. 378
Omenica Con. Mg. Co., Northwest Territory 710
Oneida Mine, Cal. 105, 135, 315
Ontario Boulder Mg. Co., Ont..... 170
Ontario, Columbite in 306
Ontario Corundum 303
Ontario, Corundum Lands 217
Ontario, Gold Mining in Hastings County 669
Ontario Gold Reefs Co., Ont. 439
Ontario Government Diamond Drill 49
Ontario Government Gold Concessions, Ltd. 410
Ontario Iron Mines 769
"Ontario Land Surveyors' Association, Proceedings" 123, 273
Ontario Metallic Output 335
Ontario Mine, Colo. 346
Ontario Mine Limited, Ont. 439
Ontario, Mineral Production 581
Ontario Mining in 605, 754
Ontario Mg. Co., Utah 289, 438, 559, 709, 739
Ontario, Natural Gas 109
Ontario, Portland Cement 36
Ontario & Rainy River Railway, Ont. 170, 320, 754
O. & N. Tunnel Co., Colo. 706
Opal Mg. Co., Mo. 257
Open-Heath Furnace Charger, Parry's Pat 43
Open-Hearth Steel in Russia..... 370
Ophir Hill Mine, Utah 319, 438, 709
Ophir Mine, Utah 379
Oppenheim, E. L. 194
Orcutt, C. R. 494
Ore Bodies of Uniform Grade, Mining 548
*Ore Car, Acklin's Pat. 13
*Ore Car, Chicago Standard..... 577
*Ore Car, Truax's Pat. 163
Ore Cargoes, Large 317
Ore Deposits of Western Australia, Superficial Alteration..... 520
Ore Dock, Fast Work on 307
*Ore Feeder, James' Pat. 613
*Ore Dryer, Jordan's Pat. 103
Ore Freight Rates, Clear Creek Co., Colo. 466
Ore Reserves, Calculating Value of 633
Ore Separation, Grangersburg, Sweden 638
*Ore Stamp, Smith's Pat. 13
*Ore Treating Apparatus, Craney's Pat. 793
Ore Treating Machinery, Lonergan's Pat. 673
*Ore Treatment, Armstrong's Pat. 193
*Ore Treatment, McNulty's Pat.. 703
*Ore Washer, Mytinger's Pat..... 763
Oregon Iron Mine, Mich. 47
Oriental Gold Mg. Co., Cal.... 496, 646
Oriental Mg. & Sm. Co Utah.... 799
Original Mine, Mont. 648, 797
*Oriol, Roman 95
*Ormiston's Pat. Thawing Apparatus 12
Oro Fino District, Idaho 47
Oro Fino Mine, Cal. 466
Oro Mg. Co., Ariz. 645
Oro Psyche Gold Mine, Cal. 496
Oroville Gold Dredgers, Cal. 345
Orphan Bell Mine, Colo. 556
Ortega, Carmen 464
Ortiz Mg. Co., N. M. 708
Osbiston, F. F. 614
Osceola Copper Mg. Co., Mich.. 16, 47, 376, 377
*Osceola Copper Mine, Mich., Photographs in 127
Osmond, M., and the Allotropic Theory 572
Osmond, M., and the Lavoisier Medal 572
Oswald, W. 584
Otahcite Mine, Nev. 47
Otsego Gold Mg. Co., Cal. 765
Ottney's Pat. Oil Well Casing.... 253
Otto Gas Engine Works, Pa. 704
*Oural Mountain Placers, Russia. 305
Ouray Sampling Works, Colo.... 197
Overland Dry Concentrating Co., Wyo 409
Overland Mine, Mont. 77
Overland Mg. Co., Utah 229, 349, 438, 589, 649, 709
Overman Silver Mg. Co., Nev.... 108
Over Mine, Cal. 496
Owen, C. F. 764
Owen Gold Mine, N. S. 350
Owsley Smelter, Mont. 498
Oxford Coal Washer, Pa. 558
*Oxide of Iron, Reduction, Karyscheff's Pat 253
Oxmoor Furnace, Ala. 441
Oxnam, T. H. 734, 764
Oxygen, Compressed for Gas Poisoning 451
Ozokerite 552
*Ozone Manufacture, Andreoli's Pat. 132
*Ozonizing Apparatus, Ramage's Pat 703

P

Pacific & Arctic Railway & Navigation Co., Alaska 676
Pacific Borax & Redwoods Chemical Works Co. 212, 344
Pacific Coast Borax Co. 294
Pacific Dredge Co., Idaho 617, 677
Pacific Mine, Cal. 375
Pacific Mg. Co., Utah 619
Pacific National Gold Mg. Co., Colo 436
Pacific Northwest Mg. Co., Mont. 437
Pacific Northwest Mining Corporation, B. C. 85
Packard, George A. 314, 734
Packard, G. H. 404
Pack, John W., Preparing Proof Gold and Silver 36
*Pack's Pat. Gold Recovery from Solutions 103
Pactolus Hydraulic Mg. Co., Colo 586
Pactolus Mine, Colo. 196

Page, C. W..... 134
Page, W. F..... 44
Paint, Anthony's Pat..... 793
Paint Making, Ismay's Pat..... 342
*Painter's Pat. Loader for Tramways..... 613
"Painting to Prevent Corrosion". 303
"Paleontology of New South Wales"..... 633
Palmer, C. C..... 404
Palmer, C. H..... 374
Palmer Group, Colo..... 225
Palmer's Pat. Coal Cutter..... 703
Palmer's Pat. Rock Drill Sharpener..... 763
Palmire Flat Placer, Oregon..... 348
Palmyra Mine, Colo..... 145
Palo Alto Mining Co., Wash..... 799
Pana Coal Mine, Ill.....257, 295, 497
Panama Canal 445, 715
Pan American Mg. Co., Mexico.. 559
Panamint District, Cal..... 525
Pancoast, Albert A..... 254
Pande Basin Mg. Co., Alaska..... 195
Paris Belle Mine, B. C..... 649
Paris Bourse, Reorganization, 25, 85, 115
Paris Exposition of 1900..... 547
Paris Exposition, Space in..... 595
Paris Green 771, 801
Paris Stock Market and Quotations ..... Weekly
Park City Fire, Utah.....19, 139
Park City Ore Shipments, Utah 19, 48, 109, 139, 169, 259, 289, 319, 379, 408, 438, 469, 499, 528, 559, 588, 619, 679, 709, 739, 768
Park City, Utah, Production in 1898 768
Park Mine, Colo..... 406
Parke & Lacey Co., San Francisco 435
Parker, F. C., "Tasmania and its Mineral Wealth" 423
Parker, George B..... 404
Parker, J. L..... 134
Parker, Richard A..... 734
Parker, W. C..... 284
*Park's Pat. Amalgamator..... 733
Parrish Colliery, Pa.....47, 168, 258, 318, 378, 708
Parrish, George H..... 734
Parrot Copper & Silver Mg. Co., Mont. 78, 168, 377, 558
Parrot's Pat. Carburetor 733
Parry's Pat. Open Hearth Furnace Charger 43
Parsons Bros. Slate Quarry, Pa. 138, 318, 528
Parsons, C. C..... 74
Parsons Chemical Co., Ill..... 404
Parsons, J. H., Chemical Co., Ill. 675
Parsons, William B..... 524
Passaic Rolling Mill Co., N. J.... 284
Pass Mg. Co., Idaho..... 706
Patents in Austria..... 24
Patents in China 394
Patents, Obtaining 132
Patrick, W. F.....704, 764
Paul, J. W., "Report of West Virginia Department of Mines".... 273
Paulsen Brothers, Cal..... 766
Pawnee Mg. Co., Mich.....677, 737
Payne, B. H..... 134
Payne Coal Co., Pa..... 408
Payne Mine, B. C.....79, 469
Peabody Mine, Cal..... 45
Peabody Placer Mg. Co., Colo... 227
Peace Declared 202
Peace River Country, Canada..... 559
Peace River Phosphate Co., Fla. 376, 711
Pead's Pat. Slimes Treatment.... 373
Peak's Pat. Iron Oxide Making... 192
"Pearl Fisheries and Fresh Water Pearls of the U. S."..... 513
Pearl Gold Mg. Co., Wash....229, 709
Pearls in New Caledonia..... 550
Pearsall Bros., Pa..... 678
Pearson H. E..... 194
Pease & Howard Furnace Co., N. Y 284
Peat Coke 756
Peat, Fuel, Compressed..... 666
Peat in Germany..... 634
Peat Treatment, Strong's Pat.... 163
Peck Concentrator, Mont.....17, 797
Peck & Patterson's Pat. Powdered Coal Furnace 643
Pederson Mine, Colo 316
Peers and the Press..... 303
Pekin Syndicate, Ltd., China..... 169
Peletan's Pat. Electro-Cyanide Process 253
Pelican-Dives Mine, Colo..... 225
Pellew-Harvey, W., Associated Gold Mines of British Columbia 243
Pellier, F. S..... 494
Pelton Water Wheel Co., N. Y. 495, 645
Pemberton Meadows, B. C..... 281
Pen Argyl Slate Exports 288
Pen Argyl Slate Production..... 78
Pen Argyl Slate Quarries, Pa..138, 378
Pen Argyl Valley Quarry, Pa..... 229
Pencoyd Iron Works, Pa..... 224
Penfield, S. L., "Determinative Mineralogy and Blowpipe Analysis" 513
Peniakoff's Pat. Aluminum Sulphide Making 73
Pennington County Placer Mining, S. Dak..... 108
Penn Mg. Co., Colo....197, 346, 376, 677
Penn Mg. Co., Mich..... 347
Pennsylvania Coal Co.....318, 348, 408, 535, 678
Pennsylvania Coal Miners' Troubles 78
Pennsylvania Coal Mines, Accidents in 199
Pennsylvania Coal Screen Law... 482
Pennsylvania, Department of Internal Affairs 391
Pennsylvania Mine, Colo..... 525
Pennsylvania, Mineral Statistics. 391
Pennsylvania Mg. Co., Cal.....105, 705
Pennsylvania Mining Law.....158, 560
Pennsylvania Salt Mfg. Co.'s Pat. Copper Matte Smelting 163
Pennsylvania Slate Shipments.... 711
Pennsylvania Steel Co., Pa.....14, 495
Pennsylvania Tube Works Co., Pa 194, 675
Pennsylvania Tunnel, Colo..... 225
Penobscot Mg. Co., Minn..77, 498, 557
Penrhyn Slate Co., N. Y..... 471
Penrose, R. A. F.....194, 284, 434, 584
Peoria Gravel Mg. Co., Cal..... 105
Perchoid, Substitute for Rubber.. 368
Percival Copper Mg. Co., Wis..... 19
Percival's Pat. White Lead Chamber 433
Perigo Mine, Colo.....106, 616, 796
Perkins, Prof. G. E..... 434
Perkins, S. 74
Perkins Tunnel Co., Colo..... 315
Permanganate Gold Process..... 192
Permanganate Process, Black Etard 612
Permanoid Co 764
Perrine's Pat. Tube Machine..... 643
Perrin, W. R., & Co., Chicago..... 615
Perry, Dr. George W..... 404
Perry Lease, Mo..... 288
Perschbaecker, John 284
Persia, Mineral Resources..... 38
Peru, Anthracite Coal..... 514
Peru, Borax 42
Peru, Coal 244
*Pesant's Pat. Crushing Roll..... 72
Petalite 672
Peterson, A. 44
*Petraeus' Pat. Lead Pigment.... 463
*Petre, R. W., La Plata Mountains, Colo 667
Petrified Bone Mg. Co., Tenn..259, 798
Petroleum in the Caucasus..... 699
Petroleum Desulphurizing, Colin's Pat 133
Petroleum in the Dutch East Indies 634
Petroleum in Hungary 731
Petroleum, India 731
Petroleum, Kentucky 107
Petroleum, Newfoundland 710
Petroleum Production.....345, 435, 465
Petroleum Production, Russia.244, 721
Petroleum Refining with Soda Silicate 338
"Petroleum, Report on" 393
Petroleum, Roumania 41
Petroleum, Russian for Spain..... 394
Petroleum Trade, Russia 250
Petroleum, Turkey 636
Petroleum, Virginia 649
Petroleum, West Virginia 109
Petro Mg. Co., Utah..... 558
Pewabik Iron Mine, Mich..... 77
Pewabik Tunnel, Colo 76
Pharmacist Mg. Co., Colo.196, 226, 346, 496, 585, 616
*Phelps' Pat. Oil Vaporizer..... 312
Philadelphia Engineering Works, Pa 164, 314
Philadelphia Engineers' Club..404, 464, 554, 614, 734
Philadelphia Furnace, Ala..... 644
Philadelphia & Idaho Mg. Co., Idaho 617
Philadelphia Iron Market.....Weekly
Philadelphia Metal Imports and Exports ..... Weekly
Philadelphia Mine, Cal..... 585
Philadelphia & Reading Coal & Iron Co., Pa.....258, 380, 410, 560, 678, 680, 768, 800
Philadelphia & Reading Report.. 752
Philadelphia Stock Quotations ..... Weekly
Philadelphia Water Works..... 162
Philippines, Coal in..... 3
Phillips, Alvin 614
*Phillips' Pat. Billet Machine..... 703
Phillips, William B..... 374
Phillips, Dr. Wm. B., Trans-Mississippi and International Exposition at Omaha.....3, 36, 69, 94
Phillips, Thomas W..... 164
Phillips Mine Supply Co., Pa..... 104
Phoenix Burrows Mine, Colo..... 226
Phoenix Gold Mg. Co., Ariz..... 325
Phoenix Mine, Cal..... 225
Phoenix Mine, Oregon..... 228
Phosphate Exports, Florida 742
Phosphate Exports, U. S..... 534
Phosphate Foreign Prices..... 682
Phosphate Imports 204
Phosphate Industry, Tenn..... 108
Phosphate Lands, Tenn..... 588
Phosphate Lease, Construction of 670
Phosphate Market and Prices ..... Weekly
Phosphate Mining, S. C..... 221
Phosphate Rock Prices..... 121
Phosphate Shipments, Algeria.... 742
Phosphate Shipments, Charleston, S. C.....114, 234, 355, 504, 711, 742
Phosphate Shipments and Charters ..... Weekly
Phosphate Shipments, Fla..16, 144, 204, 294, 564, 624, 711
Phosphates, Algeria 349, 474
Phosphates, Tennessee 18, 68, 138, 259, 408, 534, 711, 798, 801
Phosphorescent Strontium Sulphide 792
Phosphorus 672
Phosphorus Prices .....Weekly
Photochromy of Metals..... 513
Photography in Colors..... 513
Pichoir, Henry 554
Pick, Rubenstein's Pat..... 253
*Pick, Singleton's Pat..... 643
Picnic Mg. Co., Utah....18, 78, 469, 588
Pictet, Raoul 764
Pieper's Pat. Asphalt Making.... 763
Pierce, George W..... 644
Pierce Mine, Colo.....556, 646
Pierce, W. Frank..... 104
*Pietraschewski's Pat. Metallurgical Furnace 672
*Pietzka Heating Furnace..... 786
Pig Iron Production, U. S..... 62
*Pignotti, Lori, Regnoli, Besso, and Pantaleoni's Pat. Electric Furnace 433
Pike River Land Co., Minn..... 101
Pike's Peak Tunnel Co., Colo..... 265
Pile Driving, Fast 63
Piles, Protecting, Gallinowsky's Pat 582
Pilley's Island Pyrites..... 444
Pinchot, Gifford, "Trees and Forests of North Carolina" 62
Pinder, Joseph W..... 674
Pine Mining District, Colo..... 526
*Pinkham's Pat. Thawing Apparatus for Frozen Ground 12
Pinos Altos Gold Mg. Co., N. M., 47, 587
Pinto Mine, Colo..... 766
Pioneer Iron Co., Minn., 77, 197, 198, 257
Pioneer Mine, Mont..... 377
Pioneer Mg. Co., Cal.....165, 555, 645
Pioneer Mg. & Mfg. Co., Ala..51, 135, 141, 165, 262, 292, 320, 560, 590, 620, 710, 740, 800
Pioneerville Gravel Gold Co., Idaho 136
Pipe, American Steel in Germany 541
*Pipe, Composite, Braddock's Pat. 372
Pipe Finishing, Garland's Pat..... 493
Pipe Line Right of Way..... 696
Pipe Lines, Size of..... 612
Pipe for Russia 36
*Pit Props, Strength of..... 517
Pittsburg Coal Lands, Sales..... 261
Pittsburg Coal Market.....Weekly
Pittsburg Coal Men in W. Va..... 770
Pittsburg Coal Miners' Meeting.. 800
Pittsburg Coal Miners' Strike..320, 351
Pittsburg Coal Miners' Troubles, 50, 500, 620
Pittsburg Coal Miners' Wages.... 530
Pittsburg Coal Shipments.....531, 621
Pittsburg Forge & Iron Co., Pa... 254
Pittsburg Gas Companies, Consolidation 796
Pittsburg Iron Excitement..... 202
Pittsburg Iron Market.....Weekly
Pittsburg Iron Sales.....112, 412, 773
Pittsburg & Lake Angeline Mg. Co., Mich 197, 767
Pittsburg Miners' Convention..... 680
Pittsburg Mg. Co., Idaho..... 16
Pittsburg Reduction Co., Pa..644, 704, 735
Pittsburg Stock Quotations..Weekly
Pittsburg vs. West Virginia Coal. 601
Pittsburg Wire Co., Pa 675
Placer Gold Machine..... 702
Placer Mining, Mont..... 707
Placer Mining Pump..... 543
Placer Working 192
Placers, Dry 642
Placerville Gold Bug Mg. Co., Cal 345
*Plant & Dellow's Pat. Amalgamator 463
Planet Saturn Mine, Ariz..... 405
Plate Doubling Machine, Westwood's Pat 463
Plate Finishing Mill, Theobald's Pat 223
Platinum, Algeria 244
Platinum in Meteorite 514
Platinum Furnaces 102
Platinum in Russia 574
Platt, Henry M..... 734
Pleasant Valley Coal Co., Utah.. 798
Pleasant Valley Mg. Co., Mo..... 647
Pless, W. B..... 704
Plumas Eureka Mine, Cal..... 196
Plumbago Mine, Cal..... 496
Plummer, John, Deep Mining in Australia 784
Plummer, John, Gold Prospecting in New Guinea 216
Plummer, John, New Australian Silver Field 699
Plummer, John, Queensland Gold Mines 244
Plymouth Con. Mg. Co., Cal..375, 615
"Plymouth County, Iowa, Geology" 333
Pneumatic Engineering Co., N. Y. 675
*Pneumatic Pump, Smith's Pat... 793
Pocahontas Coal Exports 260
Pocahontas Mine, Cal..... 765
Pocahontas Mine, Colo..... 46
Pochuck Granite Co., N. J..... 498
Pointer Mine, Colo..... 255
Poisoning in Cyanide Works..... 363
Poland, Sulphur Reduction 65
Polishing Steel Wire.....402, 462
Polonium, New Element..... 304
*Poltremol's Pat. Vaporizing Mineral Oils 193
Pompier Mine, Cal..... 105
Pond Creek Coal Co., Pa..... 468
Pongibaud Mg. Co., France..... 175
*Poole's Pat. Tailings Treatment 493
Poorman Mg. Co., Idaho.....227, 796
"Poor's Manual of Railroads of the U. S." 363, 393
Poplar & Flat Iron Mine, Mont... 17
"Population and Social Statistics of Massachusetts" 723
Porcelain, New 274
Portage Iron Co., Pa..... 374
Porter, H. K., & Co., Pa..... 704
Porter, Hugh 464
Porter, J. B..... 494
Porter, Joseph J..... 164
"Portland Cement, Manufacture and Use" 693
Portland Cement Co., Utah....109, 393, 738
Portland Cement in Ontario 36
Portland Cement Works, Perry, Mich 467
Portland Gold Mg. Co., Colo...46, 196, 286, 616, 736
Portland Mine, San Juan County, Colo 256
Portland Mg. Co., Oregon.....78, 318
Portland Mg. Co., S. Dak..618, 679, 768
Portmadoc Slate Shipments, Wales 589
Porto Rico Mg. Co., B. C.....200, 799
Porto Rico, Prospecting in..... 781
Portuguese Bar Hydraulic Mine, Cal 585
Posey, O. P.....404, 554
Possession of Mine by Purchaser. 521
Postlethwaite Dredge, Cal 466
Potash Salts, Prices.....Weekly
Potazuba Mine, Cal.....285, 375, 615
Potosi Mine, Idaho..... 16
*Potter's Pat. Regenerator..... 43
"Potter, Story of".....183, 543
Pottery Trust, Ohio.....435, 554
*Potgens' Pat. Pulverizer..... 493
Potthoff's Pat. Corrugating Machine 283
Potts, John 674
Pottstown Iron Co., Pa 285
Potts Valley Iron Co., Va..... 649
Poulot, Charles 794
Powell, Evan 404
Powell, Goodwin 674
Powell, William Co., O..... 314
Power from Blast Furnace Gases 782
Power as a By-Product in Coke Making 631
*Power from Compressed Cases, Dickerson's Pat 163
"Power Production, Cost of"..... 274
Power Transmission Plant, Long Distance 309
Powning Gold Mg. Co., Cal..... 255
Prairie Belle Mg. Co., Utah 768
*Prall's Pat. Heat Conversion into Power 373
Pratt Institute, Brooklyn 194
Pratt, J. H., Occurrence and Chemical Composition of Chromite 696
Preacher Mine, Ga..... 586
*Precious Metal Extraction, Schuch's Pat 463
Precious Stones, How to Identify 606
Precious Stones, Imports..244, 397, 581
Prendergast, Roger 284
Prentice, Manning 764
Prescetto's Pat. Electric Accumulator 673
Prescott, F. M..... 434
Prescott's Pat. Pulverized Coal Burner 72
Preston Coal Co., W. Va..... 379
Preston Mining & Milling Co., Colo 106, 586
Preston, Percy 74
*Preston's Pat. Refractory Ore Treatment 432
Price, A. L..... 254
Price Coal Mine, Utah..... 378
Price, George E..... 254
Price, Marsh & Laybourne's Pat. Tube Rolling Mill..... 253
Price Mine, Cal..... 45
Price's Pat. Tube Machine..... 612
Pride of the Mountain Mine, Wash 109
Pride of the West Mg. Co., Colo. 76, 256
*Pridham's Pat. Ammonia Salts Recovery 283
Primrose Mine, Mich..... 647
Primrose Mine, Pa..... 708
Primrose Mg. Co., Utah..... 768
*Princess Estate, Transvaal 69
Princess Maud Mine, Wash....439, 469, 679
Princess Mining Co., Cal..... 615
Princton Iron Mine, Mich.....47, 137
Private Survey of Location..... 340
Proks' Pat. Filter Frame..... 193
*Proks' Pat. Filter Plate..... 193
Promoters and the British Investing Public 632
Proof Gold and Silver, Preparing 36
Proposed Purchaser Cannot Intervene 371
*Prospecting Drill, Bradley, Otto & Wolfe's Pat..... 793
*Prospecting Tool, Glover's Pat.. 673
Prospective Profits 460
Prospective Purchaser, Obligations 460
Prospect Slate Company, Pa..288, 318, 678
Prospectus, Model 516
*Providence Champion Decision 214, 303, 362
Providence Mg. Co., Cal..106, 255, 405, 556, 615
Provot, F. A..... 434
Prussia, Coal 702
Prussia, Coal Production 206
Puget Sound Coal Mines, Wash.. 520
Pulverized Coal Burner, Prescott's Pat 72
*Pulverized Fuel Burner, Freitag's Pat 403
Pulverizer, Brown's Pat..... 582
Pulverizer, Johnson's Pat..... 762
*Pulverizer, Montgomery's Pat... 952
*Pulverizer, Pottgens' Pat..... 493
Pump Chamber, Steier's Pat..... 493
*Pump, Graig's Pat..... 222
Pump, Hydraulic, Carty's Pat..... 402
Pump, Jones' Pat..... 793
Pump, Kimes' Pat..... 673
Pump, Moore's Pat..... 253
Pump, Morrison Pneumatic..... 316
Pump, Placer Mining 543
*Pump Regulator, Deane's Pat.... 983
*Pump, Rhodes' Pat..... 103
*Pump Valve, Gale's Pat..... 199
*Pump Valve, Worthington's Pat. 199
Pumping Engine, Old 200
Pumping Wells, Allen's Pat..... 523

*Pumping and Winding Machinery, Symington's Pat..... 433
Pumps, Centrifugal in Series..... 666
Punching and Shearing Machine, Nichols' Pat 583
Puzzle Mine, Colo.....436, 616, 646
Pyrites in Hungary..... 784
Pyrites Imports, Great Britain... 384
Pyrites, Imports from Spain..... 594
Pyrites Market, Weekly from Sept.10
Pyrites, San Diego County, Cal... 771
Pyrites Shipments, Louisa County, Va.....379, 438
Pyritic Shales, Iron Sulphate from 789
*Pyritic Smelting, Westman's Pat 163
Pyrites, Sulphurous Acid from.... 514
*Pyrometer, Uehling's Pat..... 673

Q

Quaker Valley Mg. Co., O.....228, 258
Qualey, Frank 464
Quarries, Subterranean, Maastricht, Holland 634
Quarry Railroad, Maine 63
Quartz Crystals 492
*Quartz Mill, Crouse's Pat..... 583
*Quartz Mill, Davis' Pat..... 642
Quartz Veins, Working 252
Quartz Wonder Claim, Colo....16, 315
"Quebec, Gold in" 303, 633
Queen Ann Mine, Colo..... 715
Queen Bess Mine, B. C..... 469
Queen Iron Mine, Mich....47, 137, 767
Queen Mine, Mont....137, 228, 288, 678
Queen of the West Mine, Colo. 106, 166, 796
Queensland, Chillagoe Copper District 511
Queensland, Gold Mines 244
Queensland, Gold Production..109, 230, 379, 499, 529, 619, 769
Quicksilver Exports, U. S..54, 204, 234, 254, 474
Quicksilver in Italy 514
Quicksilver Market and Prices ..... Weekly
Quicksilver, New Assay for..... 486
Quicksilver, New Zealand 79
Quicksilver Ores from China..... 728
Quicksilver Receipts, San Francisco 114, 234, 384, 534, 593, 744
Quicksilver, Recovering Sickened, 342, 402
Quicksilver Separation from Copper 94
Quicksilver Trade, Great Britain 114, 264, 384, 534, 774
*Quick's Pat. Rock Drill Forging. 73
Quilp Mine, Wash..... 709
Quincy Mg. Co., Mich.....76, 137, 257, 376, 497, 706
Quinnisec Iron Mine, Mich..... 497
*Quinn's Pat. Wood Alcohol Making 463
Quito Mine, Colo 136

R

Radamacher Mine, Cal 285
*Rae's Pat. Amalgamator.....643, 733
Ragged Top District, S. Dak..199, 378
Raht, A. 434, 464
Rail Agreement, New 572
Rail and Structural Steel Specifications 640
Railroad, Most Northern 12
Railroad Rates on Coal..... 402
Railroad Rates on Iron Ore..... 526
Railroads in China 726
"Railroads of the U. S." 363
"Railway Map of South America" 723
"Railway Track and Track Work" 123
Rainer, J. B..... 284
Rainey, W. J., Coke Ovens, Pa. 648, 678, 738
Rainey River, Ontario 320
Rakhmanovka-Krivoi-Rog Iron Mg. Co., Russia..... 775
Raleigh Coal & Coke Co., W. Va. 19
Ralston, W. C., Tunneling at the Melones Mine, Cal..... 758
Ramage, Rogers Chemical Co., O. 14
*Ramage's Pat. Ozonizing Apparatus 703
Rambler Cariboo Mg. Co., B. C. 469, 740
Rand, Charles F..... 644
Rand District, Cal 255
*Randolph's Pat. Concentrator.... 703
Randsburg Chemical Reduction Works, Cal 676
Randsburg District, Cal.....375, 753
Raney, T. M..... 554
Ransome Leasing Co., Colo..... 316
Rapid City Chlorination Works, S. Dak 138, 259, 709
Rapid River Copper Mg. Co., Idaho 617
Rappahannock Mine, Cal 286
"Rare Earths, Mineralogy of"..... 693
Rare Elements, Prices.....Weekly
Rare Minerals in Montana..... 726
Rarus Mg. Co., Colo..... 197
Rasin Fertilizer Co., Md..... 741
"Rates, Railroad and Other" 303
Rathburn, J. P..... 644
Rat Portage Diamond Drill Co., Ontario 379
Rat Portage District, Ontario..... 620
Raub Coal Co., Pa..... 618
Raudebrock, C. H..... 44
Rawhide Mine, Cal.....75, 436, 525
Ray, Eugene 194
Ray Mine, Ariz.....466, 676
Raymond Bros. Impact Pulverizing Co., Ill..... 675
Raymond, R. W., Last Chance Decision 92, 152, 182
*Raymond, R. W., Providence-Champion Decision 214, 362
Raymaud's Pat. Alkaline Aluminate Making 523
Reading Iron Co., Pa.....194, 284, 434, 675
Read Phosphate Co..... 735
Rebecca Mine, Cal..... 315
Rebecca Mg. Co., Colo..... 605
Reburta Mg. Co., Mo..... 678
Reco Mg. Co., B. C.....469, 740
Redato Mine, Wash 769
Red Boy Mine, Oregon.....228, 528, 618
Red Cloud Mine, Ariz..... 405
Red Dog Mill, Cal..... 643
Red Elephant Mountain, Colo..... 585
Red Hills Mine, Cal..... 646
Red Rose Mine, Utah..... 169
Red Rover Mine, Cal..... 525
Red Top Mine, Wash..... 289
Red Wing Mg. Co., Utah.....438, 588
Reddick Mine, Cal 285
Reed Mine, Colo 467
Reese & Ishpeming Co., Mo..... 797
Reform Mine, Colo.....106, 166, 376
*Refractory Ore Treatment, Preston's Pat 432
"Regenerative Gas Furnaces" ... 573
*Regenerator, Potter's Pat..... 43
Regina Mg. Co., Ontario.....379, 650
Reindeer Mine, Cal 375
Reindeer Mg Co., Colo.....76, 646, 796
Relief Mine, Mont 797
Relocation and Abandonment..... 371
Remick, J. H..... 314
Remy, Bergrath 434
Renault Lead Co., Mo..... 167
Rend Coal Mine, Ohio.....347, 378, 527
Rend, J. P.....74, 494
Rend, W. P..... 644
Rend, W. P., & Co., W. Va..... 769
Renfrew District, Nova Scotia.... 350
Reno Coal Mines, W. Va..... 800
Renshaw, W. E..... 14
Republic Gold Mg. Co., Wash., 79, 229, 439, 589, 679, 709, 739, 799
Republic Iron Mine, Mich..... 47
*Republic Mine, Wash..... 545
Republic White Lime Co., Mo.... 437
Requa Mine, Colo..... 525
Rescate Mine, Mexico 470
Respectable Directors 151, 154
Resurrection Mining Co., Colo., 46, 286, 316, 556, 616, 677
*Retort Burners, Gale's Pat..... 702
Retort Door, David's Pat..... 762
*Retort Oil Burner, Larkin's Pat.. 312
*Retort, Spurrier's Pat..... 523
Reuter, John P..... 14
Revenue Gold Co., Ariz..... 555
Revenue Mine, Mont.....47, 347, 498
Reward Mg. Co., Cal..... 105
R. G. W. Mg. Co., Utah.....169, 588
Rhode Island Coal 601
Rhode Island Locomotive Works. 794
Rhode Island Mg. Co., Mich..... 706
Rhodesia Chamber of Mines, Africa 709
Rhodesia Mining Law..... 541
Rhodesia Gold Production, Africa, 709, 769
*Rhodes' Pat. Pump..... 103
Rhodes' Pat. Pump..... 103
Rhodin's Pat. Electrolytic Apparatus 222
Rialto Mg. & Leasing Co., Colo., 197, 316, 406, 496, 616, 646, 677
Rice, George Arthur..... 704
Richard Iron Mine, N. J..... 558
Richard, T. A..... 104
Richards Colliery, Pa..... 678
Richards Pat. Centrifugal Pump. 133
Richards and Roeper's Pat. Electrolytic Process 193
Richards & Roeper's Pat. Metallic Sulphides 193
Richards' Pat. Rolling Mill..... 613
Richards, W. J..... 314
Richardson Gold Mine, N. S., 20, 139, 350, 530, 649
Richardson, W. E..... 134
Richmond Iron Mine, Mich..... 137
Richmond Locomotive and Machine Wks., Va..... 675
Richmond Mine, Mont..... 767
Richmond & Zacatecas Mg. Co., Mexico 49
Richmond's Pat. Galvanic Batteries 703
Rich Patch Iron and Ore Co., Va. 769
Richter, H. T..... 494
Ridge Copper Co., Mich..... 137
Ridgeway Mine, Colo...76, 256, 616, 715
Ridley, J. C., "Reminiscences of Russia" 453, 573
Riederas' Pat. Metal Relief Making 163
Ries, Heinrich, "Clay Deposits in North Carolina" 33
Ries, H., "Devonian Shales of New York" 33
Ries's Pat. Tube Making..... 433
Riffle, Gay's Pat..... 793
Rights and Liabilities in Montana 38
Rights and Remedies of Owners of Mining Claims 9
Rigley Camp, Idaho 406
Rikoff, M. G..... 524
Riley's Pat. Slag Utilizing 193
Rincon Mines, Mexico 530
Riniker Gold Discovery, Wyoming 769
Rinn, Samuel 224
Rio Grande Coal Co., Texas..... 618
Rio Tinto Company, Spain..... 500
Rio Grande County, Large Mining Deal, Colo..... 766
Risdon Iron Works, Cal., 75, 194, 363, 675, 735
*Risdon Iron Works, Large Water Wheel 461
Risk Assumed by Miner.....580, 696
Risteen, A. D., "Metric System of Weights and Measures"..... 573
Riter & Conley Co., Pa., 74, 195, 285, 435, 494, 675
Riverside By-Product Coke Plant, W. Va..... 761
Riverside Chemical Mfg. Co., Mich. 704
Riverside Slate Quarry, Pa..... 108
R. M. G. Mine, Cal..... 45
Roasting Furnace, Alley's Pat... 133
*Roasting Furnace, Argall's Pat., 193, 523
*Roasting Furnace, Brown's Pat. 162
*Roasting Furnace, Calnan's Pat. 583
Roasting Furnace, Campbell & James' Pat..... 133
Roasting Furnace, Harland's Pat. 343
Roasting Furnace, Naef's Pat.... 193
Roasting Furnace, Wells Pat..... 763
Roast Ton, Definition of..... 277
Robbins Elkhorn Mine, Oregon... 437
Robbins' Pat. Method of Re-Using Asphalt Pavement..... 793
Robde's Pat. Centrifugal Separator 703
Robellaz, S., "Gold in Nature".. 363
Roberta Mg. Co., Mo..... 617
Robert Emmet Mine, Colo....436, 796
Robert Fulton Mine, Colo..... 106
Roberts - Austen, Prof., Mond Process of Nickel Extraction... 784
Roberts Brothers, Pa..... 588
Roberts, E. C..... 464
Roberts, Harry 374
Roberts Iron Co., Minn., 377, 647, 707
*Roberts' Pat. Hot Blast Stove.. 732
Robertson, J. E..... 434
Robins Elkhorn Mine, Oregon.... 168
Robinson & Co., O..... 44
Robinson, Frank P..... 554
Robinson, George H..... 224, 404, 764
Robinson Lake Iron Mine, Minn.. 167
Robinson-Rea Mfg. Co., Pa..... 735
Robinson, Robert 314
Roche, William 554
Rochford District, S. Dak..... 168
*Rock Breaker, Buchanan..... 610
Rock Crusher, Hall's Pat..... 43
Rock Drill, Binnie's Pat..... 373
Rock Drill, Brooks and Altman's Pat..... 432
*Rock Drill, Brown's Pat..... 133
*Rock Drill Forging, Quick's Pat. 73
*Rock Drill, Hand, Jones' Pat.... 133
Rock Drill, Hill's Pat..... 703
*Rock Drill, Leyner's Pat.....283, 703
Rock Drill, McCulloch's Pat..... 433
*Rock Drill, Ogle's Pat..... 793
Rock Drill Piston, Bant's Pat.... 373
Rock Drill Piston, Hamor's Pat.. 43
Rock Drill Sharpener, Kimber's Pat..... 763
Rock Drill Sharpener, Palmer's Pat. 763
Rock Island Mg. Co., Mont..... 407
Rock Springs Coal Mines, Wyo.. 439
Rockefeller, J. D..... 374
Rockfellow, W. H..... 794
Rocky Bar Placer, Colo..... 226
Rocky Fork Coal Co., Mont., 317, 407, 797
Rocour, G., "Calorific Equilibrium of the Blast Furnace"..... 93
Roderick, D. J..... 284
Rodman Hill Mg. Co., Cal.....45, 75
Roebling, John A. Sons Co., N. J. 344
Roentgen Rays in Examining Mineral Fuel 11
Roessler & Hasslacher Chemical Co., N. Y.....14, 675
Rogers, Brown & Co.....524, 742
Rogers, E. M..... 374
Roller Mill, Wynne's Pat..... 793
Rolling Mill, Bradley's Pat..... 492
Rolling Mill, Brooker's Pat..... 133
*Rolling Mill Carriage, Bailey's Pat..... 343
Rolling Mill, Huber's Pat.....13, 673
Rolling Mill, McMurtry's Pat..... 223
Rolling Mill Plant, Daniel's Pat.. 463
*Rolling Mill, Richards' Pat..... 613
Rollins Mill, Colo..... 106
Rolls, Weber's Pat..... 73
*Rood's Pat. Steam Pump Cut-Off 432
Roofing Slate, Prices.....Weekly
Roofing Slate, Quality of..... 501
Root, R. T..... 584
Rope Driving 162
Ropes Gold Mine, Mich..... 257, 526
Rose Cyanide Co., Mexico..... 470
Rose Deep Gold Mg. Co., Transvaal 379
Rose Mine, Cal..... 45
Rose Mine, Mont..... 797
Rose Mine, N. S..... 530
Roslyn Coal Mines, Wash.....78, 211
Ross, Gilbert McN..... 284
Ross Gold Mg. Co., Colo..... 586
*Rossi's Pat. Iron Titanium Alloy 312
Rossi's Pat. Titanium Alloys..... 793
"Rossland of British Columbia in 1898" 723
Rossland, B. C. Mg. Stock Market.....175, 205, 379, 409, 439, 469
*Rossland District, British Columbia 40
Rossland Ore Producers, B. C.... 499
Rossland Ore Sampling Works, B. C..... 200
Rossland Ore Shipments, 49, 79, 200, 230, 260, 290, 319, 349, 529, 559, 589, 676, 649, 680, 710, 740, 769, 799
Rossland Stock Quotations ..Weekly
*Ross's Pat. Smelting Furnace... 643
Rothwell, C. Garnett.....464, 554
Rothwell, John E..... 734
Roucheleau-Ray Iron and Land Co., Minn. 137
Roumanian Oil Syndicate, Roumania 170
Roumania, Petroleum 41
Route County Placers, Colo..... 766
Rover Mine, Utah 349
Rowe, P. T..... 464
Rowe's Pat. Brick Machine 523
Rowles Mine, Cal..... 345
Royal Blue Mg. Co., Mo..... 678
Royal Gas Company..... 255
Royal Mg. Co., Utah..... 499
Royal Oak Coal Co., Pa.....78, 138
Royal Slate Co., Pa..... 138
Royalties and Net Proceeds..... 251
Rua Mine, S. Dak.....199, 288
Rubber Neck Mg. Co., Mo.....17, 137
Rubber, Perchoid Substitute for.. 368
Rubber Substitute, Leonard's Pat. 793
Rubenstein's Pat. Pick..... 253
Ruby Basin, S. Dak..... 18
Ruby Mine, Colo., 166, 197, 265, 286, 616
Ruby Mine, Mont..... 78, 527, 557, 587
Ruby Mg. Co., Mexico..... 170
Ruby Placer Co., Mont..... 317
Russia, Diamonds 516
Russia, Iron Industry 217
Russia, Mineral Rights 241
Russia, Mining Machinery..... 639
Russ a. New Iron Works 694
Russia, Open-Hearth Steel 370
*Russia, Oural Mountain Placers 305
Russia, Petroleum Production, 244, 250, 721
Russia, Pipe for 36
Russia, Platinum in..... 574
"Russia, Reminiscences of"....453, 573
Russia, Slag Brick 394
Russia, Southern Gold and Lead Mines 548
Russia, Sulphur in 70, 731
Russian Loan in New York..... 773
Russian Oil Profits 335
Russian Petroleum for Spain.... 304
Rust, W. R..... 284
Ruth Mine, B. C.....469, 740
Ryan & Co., Ill..... 675
Ryan, Dennis 494
Ryan, W. J..... 44

S

Sabin, A. H. "Painting to Prevent Corrosion" 303
Sacramento Mg. Co., Utah, 499, 529, 619, 649, 805
Safety Lamps, Mica for.....483, 791
Saginaw Mg. Co., Ariz..... 165
Saginaw Valley Mg. Co., Mich... 197
Sahara Railroad 805
St. Anthony Crystal Mica Co., Colo..... 14
St. Elmo Mine, S. Dak., 48, 138, 348, 528
St. John del Rey Gold Mg. Co., Brazil 20, 380
St. John Del Rey Gold Mg. Co., Brazil, Report 70
St. John Mine, Mont..... 737
St. Louis Engineers' Club, 404, 464, 524, 584, 734, 794
St. Louis Fdy. Co., Mo..... 735
St. Louis Lead Market.....Weekly
St. Louis Mg. Co., Colo..... 166
St. Louis Power Co., Mo..... 404
St. Louis Slate Brick Co., Minn.. 227
St. Louis Smelting & Refg. Co., Mo.....167, 286
St. Michel Electrolytic Chlorate Works 730
St. Paul Civil Engineers' Society. 764
St. Paul Group, Utah 469
St. Paul Mine, B. C..... 79
St. Paul Mg. Co., Utah 529
St. Peter Martin Mine, Ariz..... 195
Sala Mine, Sweden, Native Silver and Quicksilver 727
Salem, Va., Mineral Collection... 723
Sales & McDonald Mine, Cal..... 225
Salisbury Iron Mine, Mich..... 76
Salmon River Hydraulic Mg. Co., Cal..... 196
Salt Co., France 175
Salt Grainer, Beardslee's Pat.... 523
Salt in India 185, 730
Salt Lake City Water and Electric Power Co., Utah 618
Salt Lake Copper Mfg. Co., Utah. 558
Salt Lake Experimental Metallurgical Plant 68
Salt Lake Ore and Bullion Shipments .....Weekly
Salt Lake Stock Market and Prices .....Weekly
*Salt Pan, Tee's Pat..... 283
*Salt Purifier, Yoder's Pat..... 762
Salt, Turkey 636
Saltillo Mine, Colo..... 166
Saltpeter 324, 444, 594
*Sampling Machine, Byrnes' Pat. 253
San Andreas Gold Mg. Co., Cal., 375, 672
San Blas Mine, Colo.....646
San Carlos Indian Reservation... 525
San Cristobal Gold Mg. Co., Mexico..... 49
Sand Coulee Coal Co., Mont..... 407
Sand Dunes, Reclaiming 71
*Sand Pump, Hanson's Pat..... 373
*Sand Pump, Mann's Pat..... 433
*Sanderson's Pat. Gas Producer.. 313
Sanderson's Pat. White Lead Making 612
Sandon Ore Shipments, B. C..... 499
Sandstone, Artificial in Belgium.. 307
San Francisco Bridge Co., Cal.... 285
San Francisco Coal Receipts, 80, 201, 350, 530, 710
San Francisco Quicksilver Receipts..... 114, 234, 384, 534, 593, 744
San Francisco Specie Exports, 82, 233, 353, 533, 622, 744
San Francisco Specie Imports, 22, 83, 173, 293, 443, 563, 684
San Francisco Stock and Bond Exchange 505
San Francisco Stock Exchange Sales 205, 325, 445, 595, 715
San Francisco Stock Market and Prices .....Weekly
San Ignacio Mine, Mexico..... 440

Saniter, E. H., Allotropic Iron and Carbon 71
San Juan Gold Mg. Co., Colo., 107, 227, 647
San Juan Queen Mine, Colo..256, 616
San Luis Obispo Bituminous Rock Co., Cal..... 705
San Pablo Mine, Mexico..... 170
San Pedro Placer, N. M..... 708
San Poil Gold Mg. Co., Wash., 169, 229, 469, 539, 619, 679, 709, 739
San Sabastian Gold Mg. Co., Salvador 500
San Sebastian Mine, Mexico..... 170
Santa Barbara County, Cal., Bituminous Rock Deposit 278
Santa Matilda Mg. Co., Mexico.. 170
Santa Rosalia Mine, Mexico..... 20
Santa Rosa Mine, B. C..... 290
Santa Rosa Mine, Cal..... 585
Santiago Naval Fight 31
Sarah Lee Gold Mg. Co., B. C.... 680
Saratoga Mine, Colo 106, 586
Sargent Company, Chicago 224
Sarnia Salt Co., Ont..... 524
Sarsfield & Eureka Mine, Mont., 17, 797
Sault Ste. Marie Canal Traffic, 129, 197, 370, 483, 638, 724
Sault Ste. Marie, Electric Smelting 37
Saunders, W. L., "Compressed Air Production"..... 633
Sauntry Iron Mine, Minn 167
Savage Mg. Co., Mo..... 437
Saw Bill Gold Mg. Co., Ont., 379, 650
Saw Pit Gold Mining and Milling Co., Colo..... 136
Schanck, Prof. John S..... 764
Schaw, H., Steam as an Explosive 669
Schenectady Locomotive Works, N. Y..... 764
Scherbening, Bergrath 434
*Scherer's Pat. Hydrocarbon Burner 342
Scheu, C. H..... 74
Schirm's Pat. Ceramic Composition 342
Schmeisser, Karl, "Goldfelder Australasiens" 2
Schmertz, Edmund C..... 554
*Schmidt and Johns Cyanide Mill, Mont..... 757
Schmidt's Pat. Metal Casting..... 553
Schmuck, J. P..... 554
*Schneible's Pat. Gas Collecting and Purifying 433
Schneider, Richard 794
*Schneider's Pat. Zinc Lead Furnace 13
Schneitzer Placer, Cal..... 255
Schoen Pressed Steel Co., Pa., 524, 675, 735, 765
Schoenberger Steel Co., Pa..... 465
Schoen Pressed Steel Co., Pa., 104, 254
Scholz, C..... 524
School Section No. 16, Colo..... 496
Schott, Charles A..... 554
Schroeder Mine, Cal..... 556
*Schuch's Pat. Precious Metal Extraction 463
Schultz Belting Co., Mo..... 494
Schultz, S. P..... 404
Schumann, C. A..... 44
Schwartz, T. E.....434, 464, 764
Scientists' Conventions in New York 724
Scofield Mg. Co., Colo.....196
Scotch Hill Slate Quarry, Vt..... 319
Scotia Mine, Colo..... 76
Scotland, Iron Ore Discovery..... 728
Scotland Mine, Mo..... 347
Scotland, Mining Under Water... 4
Scott, A..... 194
Scott, Charles W..... 674
Scott, Henry T..... 254
Scott, Irving M..... 224
Scott John T..... 524
Scottish Coromandel Corporation, Ltd., N. Z..... 595
Scott's Pat. Chlorine Extraction. 763
Scoville, E. E..... 404
Scowden, Leo. A..... 674
*Screening Apparatus, Sturcke's Pat..... 793
Screening Crushed Materials, Graphic Records 486
Screens in Stamp Mills 372
Scrub Oak Mine, Cal..... 286
Scully Steel and Iron Co., Ill..... 374
Seager, James B..... 614
Sea Green Slate Trust.....261, 321
Sea-Sand Gold, Adirondack..... 363
Sea Swan Mg. Co., Utah..... 768
Sea Water, Gold from, 122, 124, 151, 154, 242
*Sea Water, Gold from Accumulator 581
Searles, James W..... 464
Secretan's Pat. Copper Alloy..... 613
Section 30 Iron Mine, Minn..... 107
Security Land and Exploration Co., Minn..... 737
Security Mg. Co., Ariz..... 75
Sedalia Mine, Colo.....55, 76
*Sederholm's Pat. Air Compressor Valve Gear 133
Seeger, "Manufacturers' Code".. 183
Seibel-Suessdorff Copper and Iron Mfg. Co., Mo..... 675
*Selecteur, David, for Copper Working 487
Selenium 42, 582, 672
Sellers' Iron Mine, Minn..... 737
Semi-Steel, Summers and Barr's Pat..... 552
Semet-Solvay By-Product Plant, Riverside, W. Va..... 761
Semet-Solvay Coke Oven Plant at Ensley, Ala.....578, 794
Senderberg Mine, Colo..... 526
Senkler, Edmund C..... 554
Sentinel Mine, Ont..... 350, 410
*Separator, Cullinan's Pat..... 462
*Separator, Jeffrey-Columbian..... 579
Separator, Lockhart's Pat..... 263
*Separator, Morse's Pat..... 72
Sepiolite, Turkey 636
Setterwell, C. M..... 674
Seven Devils' District, Idaho..... 166
Seven Devils' District in Idaho and Boston 452
Seven Stars-Hillside Case..... 542
Seven Stars Mine, Mexico.....470, 559
Seven Stars Mg. Co., Ariz.....75, 555
Seventy-Six Gold Mg. Co., Colo.. 346
Sevier Mg. Co., Utah 199, 559
Sevillot's Pat. Zinc Smelting..... 553
Sewall's Pat. Electric Underground Conduit 733
Shafter Mg. Co., Colo..... 45
Shaft Sinking, Fast Work..... 424
Shaft Work, Steel Posts in..... 571
Shakespeare Gold Mg. Co., B. C.. 145
Shakespeare Mine, Cal..... 285
Shale Brick & Paving Co., N. Y.. 254
*Shallenberger's Pat. Mine Door.. 613
Shamrock Mine, Colo..... 286
Shanghai, China, Coal Market, 21, 111, 171, 231, 320, 531, 681, 770, 800
Shanghai Stock Quotations...Weekly
Shanks Mine, Colo..... 436
Shannon Cyanide Plant, S. Dak.. 108
Sharp, C. C..... 254
Sharp & Co., Mine, S. Dak..... 199
Sharp Mine, Cal..... 765
Sharp, Thomas 224
Sharpening Drills 372
Sharpe, W. B..... 74
Sharpless, F. F., Influence of Temperature in Amalgamation. 183
Sharpless, F. F., Keys with Steel Ends 217
Sharwood, W. J., Analysis of Cyanide Mill Solutions..... 216
Shasta Slate Co., Cal..... 556
Shaw Electric Crane Co., Mich.. 74
Shawmut Copper Mine, Mich..... 407
Sheep Ranch Group, Cal..... 765
Sheet Iron Rolling, Harris' Pat.. 193
Sheet Iron Rolling, Stephens' Pat. 73
Shenandoah No. 2 Mine, Colo.... 76
Shenton, Frank E..... 678
Shepard & Searing, Colo..... 614
Sheridan-d'Autrement Iron Mine, Minn. 167, 377
Sheridan District, S. Dak..... 588
Sheridan District, Wash..... 709
Sheridan Iron Works Co., Pa..... 104
Sheridan, James 584
Sheridan Mine, Colo..... 715
Sherman Lease, Mo..... 167
Sherman, W. A..... 434
Sherrick Run Railroad, Pa..... 648
Sherrod, V. B..... 284
Sherwood, Oliver T..... 584
Shiffler Bridge Co., Pa..... 285
Shiller, W. B..... 74
Shillito, F. W., Jr., "Handbook of Corliss Engine" 393
Shipbuilding in the United States 424
Ship Materials, Sales 112
Shipping Ton 492
Shipwreck Statistics 304
Shirley, John 734
Shively's Pat. Oil Purification... 643
Shoal Lake District, Ont..... 620
Shores Iron Mine, Wis..... 319
Shoshone County Mines, Idaho... 557
Shoshone Mine, Colo..... 736
Showers Con. Mg. Co., Utah..... 799
Shryock, James J..... 134
Shultz Belting Co., Mo..... 104
Shuman, Percy L..... 404
Siberia, American Prospectors in 72
Siberian Railroad 792
Siberian Railroad, Rails for..... 742
Sicilian Sulphur Trust 457
Sicily, Sulphur Situation 3
Siemens-Halske Process..... 462
Siemens-Halske Process in Nevada 751
Sierra Mojade District, Mexico... 530
Sierra Nevada Mg. Co., Nev..... 288
Sierra Railway Co., Cal..... 286
Silent Friend Mine, Colo..... 225
Silesian Spelter 271
Silica Sand 492
Silicon Copper 311
Silver Bell Mine, Colo..... 256
Silver Bell Mine, Utah..... 619
Silver Butte Mine, Mont..... 587
Silver Cable Mine, Mont..... 737
Silver Chief Mine, Colo.....107, 256
Silver, China 130
Silver City District, S. Dak..... 438
Silver City Gold and Silver Mg. Co., Utah 139
Silver City Reduction Co., N. M.. 258
Silver Crown Mg. Co., Mont..... 17
Silver Dollar, British in the East 414
Silver Exports and Imports..Weekly
Silver Exports, New Zealand..169, 740
Silver Field, New, Australia..... 699
Silver and Gold in India..... 602
Silver and Gold Mines..... 492
Silver Hill Mine, Mont..... 347
Silver, India 302
Silver King Mine, Mont.....168, 198
Silver King Mg. Co., Utah, 19, 48, 349, 488, 469, 648, 679
Silver Lake Mine, Colo., 76, 225, 226, 256
Silver Ledge Mine, Colo..... 256
Silver Lode Mine, Utah.....469, 529
Silver Market .....Weekly
Silver Mine, Largest 432
Silver Mountain Mg. Co., Colo... 225
Silver Movement, France, 145, 385, 505, 625, 775
Silver Movement, Great Britain, 23, 113, 263, 533, 774
Silver Movement and Prices..... 92
Silver, Nitrate 712
Silver Nugget Mine, Colo..... 256
Silver, Ontario.....335, 581
Silver-Plating Combination....370, 675
Silver Prices .....Weekly
Silver Production, New Zealand, 289, 439
Silver, Proof, Preparing 36
Silver Purchases, Spain 142
Silver Queen Mine, Colo., 136, 197, 436, 706
Silver Queen Mg. Co., B. C..... 200
Silver Receipts, U. S. Assay Office .....Weekly
Silver Shipments to the East, Weekly
Silver, Spanish Purchase..... 562
Silver Standard Group, Colo..... 166
Silver, Tasmania.....499, 649
Silver Thread Mine, Ariz..... 75
Silver Tip Mine, Mont..... 377
Silver, Traffic in..... 391
Silver, Turkey..... 635
Silver Wing Mine, Colo..... 256
Silverton Smelter, Colo..... 76
Simons, F. M..... 794
Simonds & Wainwright, N. Y.... 524
*Simpson's Pat. Coal Pocket..... 282
Sinding-Larsen's Pat. Metal Extraction..... 133
Single Rail Railroad..... 162
Singleton's Pat. Gunpowder Making 373
*Singleton's Pat. Pick..... 643
Sinking Funds for Mining Companies 34
Sioux Ajax Tunnel, Utah..... 78
Sioux City Mine, Colo..... 715
Sioux Mill, Utah.....109, 289
Sirena Mine, Mexico..... 110
Siskiyou County Placers, Cal.... 255
Sisley, Lyman A..... 674
Sixteen to One Mine, Idaho..... 406
*Sizing Machine, Gray's Pat..... 163
Skaguay District, Alaska.....285, 410
Skaguay & Yukon Railway, Alaska 615
Skewes, Edward..... 404
Slag Brick in Russia..... 394
Slag Cement 282
Slag Cement, Curtin's Pat..... 72
*Slag Elevator, Jeffrey..... 130
Slag and Tailings..... 571
*Slag Truck, Morcom's Pat..... 13
Slag Utilizing, Riley's Pat..... 193
Slate, American and the Welsh Trade 770
Slate Blackboard Manufacturers' Agreement 798
Slate Block, Large..... 78
Slate for Building Purposes..... 601
Slate for Central Park, N. Y..... 501
Slate and Coal Separation..... 402
Slate, Cost of Exporting American 691
Slate for Electrical Purposes.... 621
Slate Export Prices..... 411
Slate Export Trade..... 572
Slate Exports.....Weekly
Slate Exports to Australia..... 80
Slate Exports, Baltimore..... 111
Slate Exports, Classification of. 661
Slate Exports, Pen Argyl District, Pa.....228, 288
Slate, Foreign Orders..... 648
Slate Freight Rates on....471, 560, 801
Slate Freight Rates to Australia. 741
Slate in India..... 728
Slate Marble..... 4
Slate Prices.....541, 738
Slate Prospecting, Pa..... 648
Slate Quarries, Great Britain, Labor in..... 454
Slate Quarries and the Storm.... 681
Slate Quarries, Wales..... 785
Slate Quarrymen's Strike, Pa.... 318
Slate Quarry Wages, Pa..... 288
Slate Roofs and Measures..... 672
Slate Rubbish, Bricks from..... 129
Slate Shipments, Pa.50, 648, 678,711, 738
Slate, Welsh and American, Comparative Costs..... 691
Slate Shipments, Welsh Quarries..... 320
Slate in South Africa..... 621
"Slate Trade Gazette"..... 561
Slate Trade Review.....Weekly
Slater's Pat. Vulcanizing Apparatus 72
Slaters' Union, Bangor, Pa..... 468
Slates, Method of Laying..... 761
Slatington Slate Co., Pa..... 48
Slatington Slate Shipments..... 80
Slaven, Douglas, "Who's Who, 1898" 183, 543
Sleepy Hollow Mine, Colo..... 346
"Slide Rule"..... 783
Slimes Treatment, Johnson's Pat. 433
Slimes Treatment, Koneman & Hartley's Pat..... 373
*Slimes Treatment in Montana.... 757
Slimes Treatment, Pead's Pat.... 373
Slimes Treatment in the Transvaal 541
Slipper Mine, Mont..... 647
Sloan, Samuel..... 770
Slocan Bay Mine, B. C..... 409
Slocan Cariboo Mg. Co., B. C.... 710
Slocan Ore Production, B. C..... 680
Slocan Ore Shipments, B. C..... 649
Slocan Star Mine, B. C..... 469
Slocum's Pat. Gas Manufacture.. 552
Sloss Iron and Steel Co., Ala..135, 231
Sloss, Louis, Jr..... 434
Slow Burning Mill Construction.. 212
Small, George W..... 254
Small Hopes Consolidation, Colo.. 467
Small Hopes Mg. Co., Colo..145, 226, 436, 586
Smeaton, and the First Use of Cast Iron Blowing Cylinders.... 608
Smelter Charges, Colorado..... 166
Smelting Contract, Construction.. 158
Smelting, Electric, at Sault Ste. Marie 37
*Smelting Furnace, Charlier's Pat..... 763
*Smelting Furnace, Kaemmerling's Pat..... 402
*Smelting Furnace, Lang..... 157
*Smelting Furnace, Reverberatory, Charles' Pat.....253, 731
*Smelting Furnace, Ross' Pat.... 643
*Smelting Furnaces at Broken Hill..... 248
Smelting Furnaces, Small..... 222
Smelting Profits 222
Smith, Andrew D..... 524
Smith, A. D. W., Anthracite Mine Haulage..... 611
Smith-Carlyle Group, B. C..... 145
Smith, Eben 764
Smith, Eugene A., Clay Resources and Industry of Alabama..... 369
Smith, Eugene A., Stone Industry of Alabama..... 398
Smith, F. B..... 524
Smith, Francis & Co., Cal..... 644
Smith, Frank A..... 644
Smith, Frank Clemes..... 584
Smith & Kent Mine, Mont..... 797
Smith, L. Heber..... 194
Smith & Mills, O..... 74
Smith Mine, Colo..... 556
Smith, Orlando R..... 524
Smith, Sulphuric Acid Works, Cal..... 74
Smith & Thompson, Colo..... 374
Smith's Pat. Artificial Stone..... 583
Smith's Pat. Carburetor..... 192
Smith's Pat. Chlorination of Gold Ores 43
*Smith's Pat. Oil Well Tubing..... 13
*Smith's Pat. Ore Stamp..... 13
*Smith's Pat. Pneumatic Pump.. 793
Smock, John C., "Annual Report of the New Jersey Geological Survey" 393, 603
Smuggler Mg. Co., Colo.....106, 736
Smuggler Mg. Co., Utah..... 319
Smuggler-Union Mg. Co., Colo.... 107
Smyth, C. H., Jr., "Talc Industry of St. Lawrence County"..... 33
Smyth, H. L..... 644
Smyth, W. T..... 464
*Smyth's Pat. Stamp Mill..... 762
Snake Mine, N. M..... 468
Snoqualmie Falls Electric Power Plant, Wash..... 309
Snowflake Mine, Utah..... 169
Snowshoe Mine, Mont..17, 77, 228, 498, 737
*Snow's Pat. Electrically Heated Roll..... 133
Snow Steam Pump Works, N. Y., 465, 495, 765
Snowstorm Mine, S. Dak..... 768
Snow, W. D., "Mechanical Draft for Steam Boilers"..... 154
Social Mine, Utah..... 499
"Societe d'Encouragement pour l'Industrie Nationale Year Book"..... 62
Soda, Turkey..... 636
Soda Wells, Green River, Wyo.. 409
Sodium and Sodium Peroxide..... 42
Sodium Sulphate, Washington, 619, 799
"Soil Treatment"..... 422
Soisson, Joseph, Fire Brick Co., Pa..... 764
Solvay Process Co., N. Y..... 465
Somers Coal Co., Pa..... 498
Sommers Coal Co., Mich..... 227
Sonnet Mine, Cal..... 255
Sonora Exploration & Mg. Co., Mexico..... 440
Sonora Mining, Mexico..... 110
Sornborger, E. C..... 494
Sorpresa Mine, Mexico..... 470
Sosa, Pedro Jose..... 44
Soule, Richard H..... 14
Sound Democrat Mine, Colo..... 677
South Africa, Geological Survey of Natal 730
South Africa, Gold Production of Transvaal..... 769
South Africa, Machinery Exports to..... 561
"South African Mines".....633, 753
"South African Rocks, Investigations of"..... 693
South America, Coal Exports to.. 230
*South America, Coal trade and Lignite Deposits 217
South Bend & Montana Mg. Co., Mont..... 437
South Bisbee Copper Mg. & Townsite Co.....375, 421
South Carolina Mine, Cal.....45, 585
South Carolina, Phosphate Mining..... 221
South Creek Mg. & Milling Co., Wyo..... 229
South Daisy Mg. Co., Utah.....109, 469, 499, 709
South Dakota, Clay and Stone.. 371
South Dakota, Mica..... 78
South Dakota Mg. Co., Idaho.... 256
South Dakota School of Mines..44, 284
South Dakota, White Clay..... 258
South Dakota, Wolfram in..... 798
"South, Facts About"..... 153
South Fork Mine, Cal..... 736
South Godiva Mg. & Milling Co., Utah 679, 739
South Keystone Con. Mg. Co., Cal..... 105
South Mountain Mine, Colo..... 525
South Park Mine, Colo..... 255
South Penn Oil Co., W. Va..... 349
South Range Railroad, Mich..... 526
South Rose Deep, Transvaal..... 475
South Swansea Mg. Co., Utah, 348, 408, 799
South Yuba Gold Mg. Co., Cal.... 795
Southall, J. H..... 647
Southall Mine, Minn..... 707
Southern Coal Co., Ala..... 255
Southern Mg. Co., Tenn..... 554
Southwest Connellsville Coke Co., Pa..... 678
Southwest Improvement Co., W. Va..... 409
Sovereign Mine, B. C..... 469

Spain, Manganese Ore..... 574
Spain, Mineral Imports and Exports.....215, 244, 454, 641, 783
Spain, Russian Petroleum for.... 304
Spain, Silver Buying.....82, 142
Spanish Bar Placers, Cal..... 315
Spanish Flat Ditch, Cal..... 496
Spanish Lead Market.....383, 503, 804
Sparta Iron Co., Minn..17, 77, 317, 437, 586, 617, 647, 737
Spearfish Cyanide Plant, S. Dak., 259, 288, 408, 438, 558, 679, 798
Specht, George J., "Topographical Surveying"..... 543
Specht Power Co., Colo..... 45
Specie Imports from Mexico..... 473
Specie Imports, San Francisco, 443, 563
Specie Payment Mine, S. Dak.... 588
Spelter Market and Prices....Weekly
Spelter, Silesia..... 271
Spenazuma Gold Mining & Milling Co., Ariz.....466, 774
Spencer Mine, Cal.....495, 676
Spence, Thomas..... 704
Sperry, E. S., Influence of Bismuth on Brass..... 519
Sphinx Mg. Co., Mo..... 715
Spinner Chemical Co., Mo..... 194
Spodumine..... 252
Spokane Mine, Mont..... 617
Spokane Mine, S. Dak.....168, 289
Spotted Horse Mine, Mont..... 17
Sprague Electric Co., N. J..... 675
Spring City Mg. Co., Mo..... 647
*Spurrier's Pat. Retort..... 523
*Squamish Trail, British Columbia..... 515
"Squares, Tables of"..... 183
Squaw Mountain Tunnel Co., Colo.....496, 706
*Stadia Diagram, New..... 219
Stahlburg Zinc Company, Germany..... 244
Stalmann, Otto.....494, 554
Stambaugh Mine, Mich..... 467
*Stamp Battery, Crampton's Pat. 403
Stamp Mill Cam, Way's Pat..... 253
*Stamp Mill, Capen's Pat..... 312
*Stamp Mill, Embleton's Pat..... 492
*Stamp Mill Feeder, Gates' Pat.. 312
Stamp Mill Feeder, Lacy's Pat.. 523
*Stamp Mill, Mather & Synder's Pat..... 703
*Stamp Mill, Old Time Georgia.. 789
*Stamp Mill, Smyth's Pat..... 762
*Stamp Mill, Wood's Pat..... 343
*Stamp Mill, Wood Steam..... 520
Stamp Mills, Screens in..... 372
*Stamp, Steam, Cole's Pat..... 223
Stamps, Use of Heavy..... 91
Standard Con. Mg. Co., Cal..135, 255, 435, 495, 525, 732, 795
Standard Electric Co., Cal.....225, 764
Standard Guano & Chemical Mfg. Co., La..... 14
Standard Mine, Idaho.....346, 537, 706
Standard Mg. Co., Mich..... 16
Standard Oil Company in Russia. 625
Standard Oil Company Shareholders 247
Standard Tunnel, Colo..... 646
Stanley Basin Placer, Idaho..... 677
Stanley-Helen Group, Cal..... 345
Stanley Mine, Colo..... 646
Stanton Hydraulic Gold Mg. Co., S. Dak..... 199
Stanton, John..... 554
Star Combination, Colo..... 376
Star Con. Mg. Co., Utah..229, 438, 588, 648
Star and Crescent Oil Co., Tex.. 404
Star Gas Engine Co., N. Y..... 105
Star Slate Co., Pa.....438, 678
Stark & Ralston Lead Mine, Mo. 167
Starlight Mine, Cal..... 165
Starling Mine, Colo..... 586
Stassano's Pat. Electric Furnace. 703
State Line Gold Mg. Co., Utah... 739
*Stauber's Pat. Dryer..... 43
Staunton Coal Co., W. Va..... 619
Stavoli y Tolsa, Javier..... 164
*Stead's Pat. Mining Dredge..... 763
"Steam Boiler Construction"..215, 543
"Steam Boilers, Mechanical Draft for"..... 154
Steam as an Explosive..... 669
Steam Production..... 522
*Steam Pump Cut-Off, Rood's Pat..... 432
Steam Stamp, Cole's Pat..... 613
Steam Stamp, Jones' Pat..... 163
*Steam Stamp Mill, Wood..... 520
Steel, Arsenic in..... 791
Steel, Bessemer, Great Britain... 311
*Steel, Brinell's Chart of Fracture and Carbon..... 755
Steel Case Hardening..... 334
Steel Casting, Wellman's Pat.... 313
Steel, Chemical Constitution and Physical Character 485
Steel Combination..... .....261, 331
Steel Combination, New..... 242
Steel Consolidation.....205, 292
Steel Dephosphorizing, Bodger's Pat..... 253
Steel Dephosphorizing, Gordon's Pat..... 283
Steel, Desiliconizing, Talbot's Pat. 163
Steel Exports to Great Britain.... 272
Steel Exports, U. S.....331, 773
Steel, Finished, U. S. Production. 394
Steel and Iron Production, Canada..... 454
Steel Making, Burns' Pat..... 403
Steel Making Capacity, U. S..... 4
Steel Making, Direct Process..... 481
Steel Making, Dougherty's Pat.. 433
Steel Making, Heskett & Jones' Pat..... 553
Steel Making, Jones' Mixer...302, 481
Steel, Open-Hearth in Great Britain..... 281
Steel Pipe for Seattle..... 441
Steel Posts in Shaft Work..... 571
Steel Production, Austria..... 65
Steel Production, Cheap, and Export Trade 602
Steel Production, France..... 535
Steel Production, Great Britain... 332
Steel Rail Agreement..572, 591, 621, 632
Steel Rail Conference..... 561
Steel Rail Exports..... 675
*Steel Rail Mill, McKenna's Pat. 223
Steel Rail Sales..... 682
Steel Rails for Australia..... 801
Steel, Russia 370
Steel Situation 632
Steel Tempering, Behr's Pat..... 523
Steel Treatment, Wainwright's Pat..... 43
Steel, Tungsten and Molydenum.. 430
Steel Wire, Polishing.....402, 462
Steler's Pat. Pump Chamber..... 493
Stella Mine, Ontario.....20, 410
*Stemwinder vs. Last Chance Mine, Idaho..... 490
Stephens, Jackson & Co., Slate Quarry, Pa.....229, 318, 728
Stephen's Milling Process..... 612
Stephen's Pat. Sheet Iron Rolling..... 73
Stephens' Process 482
Stephens' Process and the "Los Angeles Mining Review"..... 631
Stephenson's Pat. Carburetor.... 223
Sterling Coal Co., Utah..... 19
Sterling Mine, Oregon..... 138
Sterling Placer Co., Ariz..... 405
Sterrill, A. J..... 464
Stetson, Edward I. E..... 404
Stevens Coal Mine, Mich..... 377
Stevens, G..... 404
Stevens' Pat. Gas Manufacture.. 673
Stevens, W. le Conte..... 254
Stevenson's Pat. Blast Furnace Charger 793
Stewart, C. Nigel..... 704
Stewart, H. E..... 554
Stewart Iron Co., O..... 44
Stewart Mine, Mont.....558, 587
Stickeen River, Alaska..... 49
Stillwell Mg. Co., Mo..... 797
Stock in Iron Co., Liability on.... 670
Stock Quotation Tables—Baltimore, Boston, Cleveland, Colorado Springs, Denver, Helena, London, Mexico, New York, Paris, Philadelphia, Pittsburg, Rossland, Salt Lake, San Francisco, Shanghai, Toronto, Valparaiso ..... Weekly
Stock Transactions, War Tax..54, 55
Stoddard Washery, Pa..... 618
Stolber, Edward G..... 254
Stokes, Anson Phelps..... 14
Stokes, J. G. P..... 14
Stone, Artificial, Courtenay's Pat. 253
Stone, Artificial, Frenchel's Pat. 493
Stone, Artificial, Hobson's Pat.. 433
Stone, Artificial, Smith's Pat..... 583
Stone, Artificial, Sundell's Pat.... 133
Stone and Clay, South Dakota.... 371
Stone Cleaning Composition, Finerty's Pat..... 103
Stone, G. W., "Report of Kentucky Inspector of Mines"..... 274
Stone Industry of Alabama..... 398
*Stone Sawing Machine, Lautz's Pat..... 403
Stone Sawing Machine, Murphy's Pat..... 253
Stones, Building and Clays, Wyo. 546
Stones of Massachusetts..... 336
Stonewall Mine, Cal..... 645
Stonewall Mine, Colo..... 136
Stoneware Compound, Merrill's Pat..... 643
Storm Cloud Mine, Ariz..... 575
Storm on the New England Coast 680
*Stormer's Pat. Amalgam Washer..... 673
Storrs & Co. Mine, Mo..... 715
Stoughton, B., Determining Resistance of Fire Clay..... 485
Stout Wilbur S..... 494
Stove Makers' Combination..... 51
*Stover, Martin & Eaton's Pat. Furnace..... 643
Stowe Mine, Idaho..... 376
Strahley Slate Quarry, Pa..... 315
*Straightening Machine, Lundy's Pat..... 493
Straits Settlements, Tin Exports, 264, 383, 774
Straun Coal Mg. Co., Texas..... 558
Stray Horse Mine, Mont..47, 137, 198, 797
"Street Sweepings, Fertilizing Value"..... 483
Streker, Karl, "Fortschritte der Elektrotechnik"..... 543
Strickler's Pat. Water Elevator.. 193
Strickler Tunnel, Colo..... 796
Strong Mg. Co., Colo..... 796
Strong's Pat. Artificial Fuel..... 163
Strong's Pat. Peat Treatment.... 163
Strontium 552
Strontium Sulphide, Phosphorescent..... 792
Structural Steel and Rail Specifications..... 640
Struthers, Wells & Co., Pa..... 494
Stuart, Francis L..... 764
Stuart Mine, N. S..... 650
*Stubblebine's Pat. Furnace....73, 283
Stuptes & Co., O..... 14
*Sturcke's Pat. Screening Apparatus..... 793
Sturgeon Coal Co., O..... 437
*Sturtevant's Pat. Crusher..... 163
Suberbieville Gold Mg. Co., Madagascar..... 625
Subscribers and Partners..... 521
Success Mg. Co., Utah..... 799
Sudbury Nickel District, Ontario, 605, 754
Sudely, Lord..... 674
Sugahara, Koran..... 194
Sugar Loaf Mine, Oregon..... 228
Sugar Pine Mine, Oregon..... 318
Suit, Joining, Against Several Companies 217
Sullivan Mining Machine Co., Chicago..... 465
Sulman & Teed's Pat. Gold Extraction from Ores..... 403
Sulphate of Ammonia, Prices..... 72
Sulphide Corporation, Limited, 692, 721, 745
Sulphide Furnace, Dawson's Pat.. 463
Sulphide Ores, Mixed, Cowper-Coles' Process, for.....422, 670
Sulphide Ore Treatment, Cowper-Coles' Pat..... 703
Sulphide Ore Treatment, Swinburn's Pat..... 163
Sulphide, Zinc-Lead, Ellershausen Process 364
Sulphur (See also Brimstone).
Sulphur..... 132
Sulphur Burning, Meister's Pat.. 523
Sulphur Chloride 762
Sulphur Deposits, Venezuela..... 564
Sulphur, Estimation in Coal..... 307
Sulphur, Exports and Stocks, Sicily..... 6
Sulphur Imports, Great Britain.. 114
Sulphur in Japan..... 454
Sulphur Reduction in Poland..... 65
Sulphur in Russia.....70, 731
Sulphur, Turkey..... 635
Sulphuric Acid Making in California..... 271
Sulphurous Acid for Paper Pulp Making 514
Sultana Island, Ont..... 350
Sultan Gold Mg. Co., Ariz..... 75
Sultana Mine, Ont..... 754
Sumatra Oil in China..... 127
Summerland Oil Wells, Cal..... 285
Summers & Barr's Pat. Semi-Steel..... 552
Summers, B. S., Cupola Practice. 519
Summit Mg. Co., Mont.....17, 498
Summit Springs District, Nev.... 18
Sumter Coal Mines, Ala..... 800
Sunbeam Mg. Co., Utah..... 768
Sunburg, P..... 554
Sun Dawn Mine, Colo..... 286
Sunday Creek Coal Co., O.....437, 648
Sunday Lake Mine, Mich..... 617
Sundell's Pat. Artificial Stone..... 133
Sun Flower Mg. Co., Mo..... 77
Sun & Moon Mg. Co., Colo....315, 466, 616
Sunnyside Mine, Colo.....256, 436
Sunnyside Mine, S. Dak..348, 499, 618, 679
Sunnywood Mine, Colo..... 286
Sun Rise Mine, Mont..... 707
Sunset Mine, B. C..... 559
Sunset Mine, Idaho..... 376
Sunset Mine, Mont..... 587
Sunset Mg. & Reduction Co., S. Dak.....78, 108, 199, 318, 408, 618, 738
Sunset No. 2 Mine, B. C..19, 260, 379, 469, 529, 589, 710, 800
Sunset Peak District, Idaho..... 376
Sunshine Mine, Colo..... 496
Sunshine Mg. Co., Utah..... 529
Sunshine Water Line Co., Utah.. 709
Superheated Water, Pressure of.. 41
Superior Drill Co., O..... 434
Superior Oil Co., Ind..... 257
Surface Tension of Liquid..... 63
Surprise Gold Mg. Co., Wash..229, 709
Susan Mary Mine, Colo.....526, 646
Susmann, J. H..... 644
Susquehanna Coal Co., Pa..... 408
Sutro, Adolph Heinrich Joseph.. 184
Sutter & Amador Water Co., Cal. 645
Sutton & Co., Lease, Mo..... 407
Sutton, J. L..... 554
Swain, H. L.....194, 644
Swan-Bemis Mill, Utah..... 109
Swank, J. M., "Iron and Steel Works of the U. S."..... 33
Swansea Mg. Co., Utah..85, 139, 499, 559, 768
Swauk Creek Placers, Wash..... 269
Sweden, Iron Mines..... 582
Sweden, Iron Ore Exports..... 5
"Sweden Mineral Industry"..... 33
"Sweden, Northern Iron Ore Fields"..... 753
Sweden, Ore Separation at Grangesburg 638
Sweden, Water Power..... 185
Sweets Mine, Idaho..... 136
Sweetwater Coal Co., Wyo....409, 589
Sweet Water District, Wyo..... 439
Swinburn's Pat. Sulphide Ore Treatment 163
*Swindell's Pat. Billet Furnace.. 763
Swindler, Frank P.....524, 704, 734
Swindler Mine, Ariz..... 405
Switch Mine, Colo..... 286
Switzerland, Mining in..... 607
*Symington, R. B., Providence-Champion Case 303
*Symington's Pat. Pumping and Winding Machinery..... 433
Symons, S..... 674
Sympathetic Ink..... 702
Syndicate Gold Mg. Co., Colo.... 796
Syromiatnikoff, S. N..... 74
Syssoyeff's Pat. Luminous Composition..... 102
Szontag, Oscar.....554, 734

T

Table Mountain Copper Co., Ariz., 195, 466, 555
Tabor, Ex-Senator..... 644
Tabuca Mine, Mexico..... 769
Tacoma Smelter & Refg. Co., Wash..... 709
Taggart, Frederick W..... 584
Tailings and Slag..... 571
*Tailings' Treatment, Poole's Pat..... 493
*Tailings, Treatment in the Witwatersrand..... 5
Taku Arm, Yukon..... 200
Talbot's Pat. Desiliconizing Steel 163
Talc..... 12
Talc, California 676
Talc, Duty on Ground..... 68
"Talc Industry of St. Lawrence County, New York"..... 33
*Tamarack Copper Mine, Lake Superior 35
Tamarack Mg. Co., Mich..137, 197, 647
Tamarack Stock Prices..... 612
Tamarac Mine, B. C..... 529
Tamping for Blasts, Macnab's Pat..... 193
Tamping, Clark's Pat..... 433
*Tangential Water Wheel, Large. 461
Tangier District, N. S.....139, 350
Tangier Gold Mg. Co., N. S..... 769
Tangier Gold Mining District, B. C..... 49
Tanner, Gov..... 254
Tanner, Gov. and the Virden Affair..... 706
Tarantula Mine, Cal..... 106
Tasmania, Cannel Coal..... 664
"Tasmania, Mineral Industry".... 363
Tasmania Mineral Production..139, 319, 499, 649
"Tasmania and Its Mineral Wealth"..... 423
Tasmania, Nickel..... 611
Taunton, H. L..... 674
Taxes on Mining Property..... 191
Taxes on Mining Stock Dealings.. 91
Taylor, B. F..... 511
Taylor Iron and Steel Co., N. J.. 675
Taylor, J. B..... 284
Taylor Place Coal Mg. Co., N. C.. 108
Teal Land, Mo..... 468
Tebbles Mine, N. S..... 649
Technical Society of N. Y..... 584
"Technical Terms, Dictionary of" 483
Tecumseh Mg. Co., Mich.....16, 677
*Tee's Pat. Salt Pan..... 283
Telegraph Mine, Cal..... 45
Telephone Mine, Colo..... 136
Telegraphy, Wireless 364
Telephone Line, Long..... 397
Telluride Ores in British Columbia..... 769
Telluride Power Transmission Co., Colo.....145, 227
Tellurium Mine, Cal.....225, 375
Temperature in Amalgamation, .. 183, 423
Temperature, Influence in Amalgamation..... 370
Temple Bar Con. Mg. Co., Ariz., 105, 435, 795
Temple Bar Con. Mg. Co., Cal.... 585
Templeton Mine, Colo..... 616
Tenasket Gold Mg. Co., Wash.... 79
Ten-Forty Mine, Utah..... 109
Tennessee Coal, Iron and R.R. Co...164, 172, 232, 261, 322, 471, 501, 591, 740
Tennessee Iron Shipments..... 51
Tennessee Mine, Ariz..225, 345, 405, 525
Tennessee Mg. Co., Mo..... 377
Tennessee Phosphate Co., Tenn., 259, 528, 798
Tennessee Phosphates..18, 68, 108, 138, 259, 408, 534, 711, 798, 801
"Tennessee, Report on Labor Statistics"..... 333
Tennessee University..... 674
Terrill, W., Copper Smelting in Wales..... 665
Teslin Lake, Yukon..... 380
Testing, International Association.....44, 314
Tetro Mg. Co., Utah.....588, 768
Texada Island, B. C..... 260
Texas Mg. Co., Cal.....435, 795
Texas & Pacific Coal Co., Texas.. 355
Thacker Coal Field, W. Va..... 409
*Thawing Apparatus for Frozen Ground, Pinkham's Pat..... 12
*Thawing Apparatus, Ormiston's Pat..... 12
*Thawing Earth for Placer Mining, Kraemer's Pat..... 673
Theobald's Pat. Plate Finishing Mill..... 223
Theodolite Group, Colo..... 376
Theodore Mine, Col;..... 76
Thies, A..... 134
Thomas Co., O, 675..... ..
Thomas Iron Co., Pa..254, 284, 404, 555
Thomas Lode, Colo..... 227
Thomas' Pat. Metallic Coating of Surfaces 432
Thomas Scholz Coal Co., W. Va., 200, 529
Thompson, Arthur 644
Thompson, C. A..... 14
Thompson, C. H..... 644
Thompson Coal Mines, Ky..... 407
Thompson Mine, Colo.....75, 466, 796
Thompson Phosphate Co..... 104
Thompson, R. M..... 254
Thomson's Pat. Crushing Rolls.. 433
Thompson's Pat. Oil Well Tool.. 763
Thorpe Gold Mg. Co., Cal....195, 375, 466, 585
Thorp, S. P..... 44
Three Forks Mg. Co., Colo..... 466
Thum's Pat. Electrolytic Apparatus..... 703
Tibbey Coal Mine, N. S..... 20
Tibet, Gold in..... 372
Tidal Stream Mg. Co., Utah..... 529
Tide Coal Co., Pa..228, 678, 681, 738, 740
Tidewater Air Compressor, Beckers' Pat..... 403
Tiger Mine, Colo..... 256
Tigress Mine, Colo..... 496
Tilden Mine, Mich..... 347
Tilford District, S. Dak..... 588
*Tillman's Pat. Blowpipe..... 43
Tilt Cove Pyrites Mine, Newfoundland..... 414
Timber Fires, S. Dak.....438, 468
Timber Peak Mg. Co., N. M..288, 708
Tin, Bolivia..... 632

Tin Estimation in Tin Salts.....333
Tin Exports, Java..... 4
Tin Exports, Straits Settlements, 264, 383, 774
Tin Imports, Great Britain...264, 383, 534, 774
Tin Imports, U. S.....53, 203, 294
Tin Market and Prices.....Weekly
Tin Mining in Cornwall..... 571
Tin Ore, Colorado.....215
Tin Plate Combination....411, 621, 683
Tin Plate Trade, Great Britain.... 548
Tin Plate Trade, Welsh, Wages in..... 668
Tin, Stocks.....174, 563
Tin, Tasmania.....499, 649
Tin, Visible Supply.....53, 294, 444, 684
*Tinkiepaugh & Conweil's Pat. Mine Car Axle..... 702
Tintic Ore and Bullion Shipments, Utah..... .....Weekly
Tioga Mining Co., Utah....19, 499, 769
Tip Top Gold Mg. Co., S. Dak.... 48
Tip Top Mine, Colo..... 136
Tip Top Mine, Idaho.....166, 467, 617
Tip Top Mg. Co., S. Dak..... 229
Tischendorfer, Friedrich..... 614
Titaniferous Ores 72
Titan Steel Co..... 764
Titanium Alloys, Rossi's Pat.....793
Titus' Gold Dredge, Ga..... 46
*Titus' Pat. Compressed Air Water Elevator..... 73
Tobacco Mountain Mg. Co., Mont. 168
Todd, J. E., Clay and Stone in South Dakota..... 371
Toldt, F., "Regenerative Gas Furnaces".. 573
Tomboy Gold Mines Co., Colo..107, 316, 647, 766
Tom Thumb Mine, Colo..... 616
Tom Thumb Mine, Wash.....589, 679
Tomkins' Pat. Furnace Charger.. 163
Tonquin, China, Railroad..... 685
Topeka Mine, Colo..196, 436, 526, 556, 586, 739
Topographical Models in Stamped Metal.. 398
"Topographical Surveying"..... 543
Top Run Mg. Co., Mo..... 198
Tornado Mine, Colo..... 466
Toronto Stock Quotations....Weekly
Toronto and Western Development Co.... 20
Tuston Coal Mines, Mont..... 317
Toughnut Mine, Cal..... 255
Tower Peake Mine, N. M..... 648
Townsite Patent and Mining Claim..... 761
Toya Sulphur Mine, Texas..... 48
Trachyte Mg. Co., Colo..... 715
*Tracis' Pat. Hydrogen Gas Making..... 403
Trade Dollar Mine, Wash....589, 739
Trade Dollar Mg. Co., Idaho..... 16
Trade Name for Coal..... 761
Trade Water Coal Co., Ky..... 497
Trail Creek Coal Co., Mont....737, 797
Trail Creek Ore shipments, B. C. 19, 49, 109, 139.
Trail Creek Smelter..... 49
Tramway, Frigard's Pat..... 13
Tramway Mine, Mont..... 347
Trans-Mississippi Exposition, Mines at 91
Trans-Mississippi and International Exposition at Omaha..3, 36, 69, 91, 94
Transvaal, Amalgam Treatment.. 578
Transvaal Coal Production..... 230
Transvaal, Dynamite in..... 41
Transvaal Electric Power Plant in..... 664
Transvaal, Gold Production..139, 211, 230, 409, 499, 529, 631, 649, 769
Transvaal Mining Concessions.... 409
Transvaal, Mining Taxes..... 691
*Transvaal, Princess Estate..... 69
Transvaal, Shaft Sinking in..... 424
Transvaal, Slimes Treatment..... 541
*Transvaal, Treatment of Tailings in the Witwatersrand.... 5
Tropp, W. H. C..... 44
Tratman, E. E. R., "Railway Track and Track Work"..... 123
Travis, W. E..... 794
Treasure Hill Mine, Utah..109, 289, 408
Treasury Mine, Wash.....469, 799
"Tree Planting on the Plains"..... 154
"Trees and Forests of North Carolina".... 62
Treloar's Pat. Crushing Rolls.... 553
Tremont Gold Mg. Co., Mont..... 17
Trenton Iron Co., N. J..... 675
Triad Lead and Zinc Co., Mo..... 617
Trilby Mine, Colo..... 286
Trip & Ainsley Mill, Mont..... 498
Triple Alliance Mine, Cal..... 135
Triple Pocket Mine, Cal..... 496
Triunfo Mine, Mexico..... 470
Tropenas Steel Process..... 735
Trotter Water Co., Pa..... 798
Troublesome Mine, Colo..... 106
Troy Malleable Iron Co., N. Y.... 494
Troy Steel Co., N. Y..... 594
Truax Mfg. Co., Colo.....134, 735
*Truax's Pat. Ore Car..... 163
Truchot, P., "Rare Earths"..... 693
Trump's Pat. Coke Drawing..... 613
Tube, Compressible, Kinne & Gartner's Pat..... 373
Tube Machine, Deming's Pat.... 492
Tube Machine, Ivins' Pat..... 283
Tube Machine, Perrine's Pat..... 643
Tube Machine, Price's Pat..... 612
Tube Machine, Wilson's Pat..... 793
Tube Machine, Wright's Pat..... 318
Tube Making, Ellis' Pat..... 582
Tube Making, Ries' Pat..... 433
Tube Rolling Mill, Price, Marsh & Laybourne's Pat..... 253
Tubes, Flexible, Guilleaume's Pat. 403
*Tuck's Pat. Excavating Frozen Earth.. 582
Tucson Sampling Works, Ariz.... 165
Tulare County Electric Plant, Cal..... 196
Tungsten Assay..... 702
Tungsten, Demand for..... 571
Tungsten Mg. Co., S. Dak.....168, 499
Tungsten and Molybdenum Steel.. 430
Tungsten Ore..... .....702, 792
Tungsten Ore, Ariz..... 601
Tungsten Ore, S. Dak..... 408
Tungsten Prices.....Weekly
Tungsten Silicate..... 401
*Tunneling Machine, Lauter's Pat..... 523
Tunneling at the Melones Mine, Cal..... 758
*Tunneling Shield, Dunlop's Pat. 733
Tunnel No. 3 Mine, Cal..... 765
Tuolumne County Water Co., Cal. 345
Tuolumne Mother Lode Mg. & Dev. Co., Cal..... 766
Turkestan Gold Production..... 398
Turkey, Useful Minerals..... 635
Turner, A. D..... 434
Turner, Curtis C..... 74
Turner Flat Drift Gravel Mg. Co., Cal..... 615
Turner Mill, Colo..... 45
Turner, R. D..... 524
Turney & Jones Coal Co., O..... 618
Turning Point Gold Mg. Co., Ariz. 466
*Turquoise Deposits, Mohave County, Ariz..... 697
Tussey Mountain Mg. Co., Pa..... 258
*Tuyere Cooler, Kilieen's Pat.... 583
*Tuyere, Hartranft's Pat..... 73
*Tuyere, Iron, Clark's Pat..... 733
Tuyeres, Benni's Pat..... 253
Tuyeres, Multiple, for Blast Furnaces..... 518
*Tweddle, H., Gold Fields of Guiana..... 97
Twin Bridges Smelter, Mont., 678, 737
Twin Lakes Con. Placer Mg. Co., Colo.... 286
Twin Shaft, Pa..... 438
Twin Sisters' Mine, Idaho.....166, 706
Twin Springs Co., Ore..... 708
Two Bills Mg. Co., Mo..... 377
Two-Bit District, S. Dak..18, 318, 498
Two Harbors Ore Shipments, Minn..... 526
Tycoon Mg. Co., B. C..... 620
Tycoon Mg. Co., Ont.....20, 439
Tyler, S. W..... 464

U

Uehling, E. A..... 794
Uehling Metal Conveyor..... 224
*Uehling's Pat. Calorimeter..... 103
*Uehling's Pat. Pyrometer..... 673
Uintah Copper Summit Company, Utah 619
Uintah Summit Mine, Utah...709, 790
*Ulke, Titus, Arrangement of Electroplating Plant..... 159
Ulke, Titus, Progress in Electrolytic Copper Refining in 1897.. 6
Ulster Mine, S. Dak..... 618
Ultramarine..... 522
Umber, Turkey..... 636
Umpire Coal Mine, Pa..... 385
Uncle Sam Mine, Cal..... 45
Uncle Sam Mine, Idaho..... 107
Uncle Sam Mine, S. Dak..... 798
Underground Surveying..... ... 372
Underhill, James..... 644
Undine Mine, Utah..... 139
"Ungarisches Statistisches Jahrbuch"..... 2
Union Copper Land & Mg. Co., Mich..... .....257, 467 677
Union Ditch Mine, Cal..... 495
Union Gold Mg. Co., Colo..85, 106, 196, 316, 346, 406, 466
Union Iron Works, Cal..... 735
Union Lead Co., Mo.....678, 767
Union Leasing and Mg. Co., Colo. 136
Union Mine, Mich..... 706
Union Pacific Coal Co., Wyo..409, 589
Union Smelter, Colo..... 265
Union Springfield Mine, Cal..... 15
United Alkali Co..... 465
United Gas Improvement Co., N. Y..... 794
United Globe Mg. Co., Ariz....495, 555
"United Kingdom, Coal Exports of"..... 393
"United Kingdom Mines and Quarries, Report"..... 393
United Mexican Mg. Co., Mexico. 140
United Mine Workers, Pa..... 440
"United States Army, Report of Chief Engineer for 1898"..... 723
U. S. Assay Office Silver Receipts..... .....Weekly
United States & British Columbia Mg. Co., Colo..... 256
United States Chemical Co., N. J. 104
U. S. Chemical Imports..... 741
U. S. Coal Exports..... 241
U. S. Coal Miners' Wages..... 422
"United States Commercial Relations with Foreign Countries" 663
United States Court Jurisdiction in Mining Claims..... 550
U. S. Finished Steel Production.. 394
United States, Foreign Manufacturers in..... 661
U. S. Foreign Trade....233, 352, 503, 622
"U. S. Geological Survey, Atlas Folios"..... 62
"U. S. Geological Survey Monograph"..... 513
U. S. Iron Production..... 62
U. S. Iron and Steel Exports..331, 742
U. S. Iron and Steel Making Capacity..... 4
"United States, Iron and Steel Works"..... 23
U. S. Lead Imports..... 354
U. S. Lead Imports and Exports. 452
U. S. Lead Mines..... 302
"United States, Lights and Fog Signals on Atlantic and Gulf Coasts"..... 723
U. S. Mint Coinage..83, 173, 323, 443, 592, 684
United States Mitis Co..... 74
United States, Money in..83, 173, 353, 443, 592, 714
U. S. Nickel Exports..... 204
"United States, Occurrence of Vanadium and Molybdenum in" 363
U. S. Oil Exports.....75, 224
"United States Pearls and Pearl Fisheries"..... 513
U. S. Phosphate Exports..... 534
U. S. Pig Iron Production.....122, 126
U. S. Quicksilver Exports..54, 204, 474
United States Radiator Works, Pa.. 704
"United States Railroads, Poor's Manual of".....363, 393
United States, "Report of the Register of the Treasury"..... 663
United States, Shipbuilding in.... 424
United States Slate Co., Pa....138, 199
United States, Slate Prices..... 541
U. S. Tin Imports.....53, 203, 294
United States Treasury Receipts. 563
United States Treasury Receipts and Expenditures..... 323
United States Treasury Statement..... ....Weekly
U. S. Zinc Exports.....54, 204, 354, 474
U. S. Zinc Imports..... 474
United Verde Copper Co., Ariz.... 375
Unity Mine, Cal..... 795
U. P. Gold Mines Co., Colo..... 136
Upham, C. C., Coal Sizing Before Washing..... 546
Upper Ten Gold Mg. Co., Colo.... 525
Uranium Ore 162
Uruguay Gold Production..... 290
Utah Antimony Shipments..... 618
Utah Bullion and Ore Freight Tariff..... .....738, 768, 798
Utah Bullion and Ore Shipments, 738, 768
*Utah, Chloride Mine and Mill, Utah..... 605
Utah Consolidated Gold Mines, Ltd..... ....745, 792
Utah, Cyanide Practice in..... 730
Utah Cyanide Products....108, 259, 648
Utah Drought.....289, 318, 588
Utah Gilsonite Deposits..... 649
Utah Metal Statistics..... 588
Utah, Mining Outlook.....679, 738
Utah Ore Shipments.....Weekly
Utah Ore Supply..... 648
Utah & Pacific Railroad Co., Utah..... .....259, 469, 528
Utah, Portland Cement Plant.... 393
Utah Silicious Ores.....289, 318
Utah, Smelter Products..... 709
Utah Smelter Situation..... 768
Utah Spur Mine, Utah.....558, 739
Ute & Ulay Mine, Colo..... 677
Utica Mine, Colo..... 375
Utica Mg. Co., Cal.....75, 135, 585, 676

V

Valdes, Alaska..... 375
Valentine Iron Co., Pa..... 194
Valeo Mg. Co., Utah..169, 259, 648, 679, 709, 799
Valley King Mine, Colo..... 436
Valley Mine, Colo.....145, 406
Valley View Gold Mg. Co., Colo., 145, 766
Valparaiso, Chile, Chemical Market..84, 175, 234, 535, 624, 712, 742..805
Valparaiso Mine, Cal..... 345
Valparaiso Stock Quotations, Weekly
"Vanadium and Molybdenum, Occurrences in the U. S."..... 363
Vancouver Island, B C..... 638
Vandeveer Mine, Cal..... 196
Van Diest, P. H., Mineralogical Mistake 215
Van Fleet's Pat. Glass Manufacture..... 103
Vanner, Degoutin's Pat..... 433
Van Slooten, William.....104, 194
Vantances Mine, Mexico..... 470
Van Wickle Collieries, Pa..... 288
Van Wickle & Co., Pa..... 318
*Vaporizing Mineral Oils, Poltremol's Pat..... 193
"Varnish and Linseed Oil Manufacture"..... 62
Vaseline, Solubility..... 642
Vauclain's Pat. Compressed Air Locomotive 643
Vaughn & Co. Mine, Mo..... 198
Vaughn's Pat. Hammer..... 73
Vautin, Claude..... 584
Vein and Lode..... 550
Vekol Mine, Ariz..... 555
Velvet Mine, B. C.....79, 589
Venable, F. P., "Inorganic Chemistry"..... 393
Venator, Max, "English, German, Spanish, French Dictionary of Mining Terms."..... .....483, 663
Vendors, Liability for Prospectus 542
Venezuela Sulphur Deposits..... 564
Venezuela Trading and Investment Co..... 564
Venture Corporation, Ltd., Colo., 286, 405, 496
Vercoe, H. B..... 134
Vermilion Range Iron Mines..... 17
Vermilion Range Iron Ore Shipments 167, 317
Vermont Copper Mines..... 492
Vermont Slate Co., Vt....200, 291, 321, 381
Vermont Slate Properties, Sales of 471, 501
Vermont Slate Quarry, English Purchases 741
Verna Petroleum Co., Texas.... 145
Verne Coal Co., Mich..... 377
Vickers Sons & Maxim Co....691, 704
Vicksburg Mine, N. M..... 798
Victor Gold Mg. Co., Colo...25, 76, 646
Victor Gold Mg. Co., Colo., Report..... ....130, 251
Victor, Jr., Mg. Co., Ore..... 618
Victoria Gold Production.....499, 649
Victoria Gypsum Co., Nova Scotia..... 800
Victoria Mine, Colo..... 286
Victoria Phosphate Co., Fla..... 736
Vielle Montagne Zinc Co., Belgium..... 218
Village Belle Mine, Colo.....75, 106
Vindicator Con. Mg. Co., Colo..46, 466, 616, 646
Violation of Law, Cause of Injury..... 221
Virden Affair..... .....452, 481
Virden Coal Riot, Ill..... 706
Virginia-Carolina Chemical Co., Va..... ....74, 624, 741
Virginia Con. Mg. Co., Colo..... 15
Virginia Copper Deposits..... 93
Virginia Mine, Cal..... 105
Virginia Mining Co., B. C..19, 169, 200, 290, 319
Virginia Mg. Co., Ont..... 439
Virginia Mining Jubilee..... 604
Virginia Petroleum..... 649
Virginius Mine, Colo..... 436
Virtue Mine, Ore.....168, 318, 528
Voge Coal Mine, Ill..... 497
Volcano Mine, Cal..... 375
*Vollath's Pat. Diamond Drill Bit. 613
Von Arnim Mine, Mont..... 138
*Vulcan Corliss Hoisting Engine. 491
Vulcan Iron Works, Cal..... 675
Vulcan Iron Works Co., O..14, 254, 644
Vulcanizing Apparatus, Skater's Pat..... 72

W

Waddell, J. A. L., "De Pontibus" 33
Wade, J. H..... 134
Wade, W. M., Copper Mining at Kamloops, B. C..... 698
Wadlin, H. G., "Census of Manufactures in Massachusetts"..... 543
Wadlin, H. G., "Statistics of Manufactures in Massachusetts"..... 453
"Wadnaminga Gold Field, South Australia"..... 513
"Wages and Hours of Labor in the United Kingdom"..... 393
*Wainwright's Pat. Molten Metal Exhauster..... 43
Wainwright's Pat. Steel Treatment..... 43
Waldstein's Pat. Gold Recovery from Solution.. 163
Wales, Copper Smelting in..... 665
Wales, Gold Dredging..... 42
Walker, Clinton R..... 434
Walker Company, O..... 105
Walker & Elliot Co., Del..... 765
Walker Lease, S. Dak..... 259
Walker Mfg. Co..... 374
Walke, Willoughby, "Lectures on Explosives"..... 663
Walling, H. F., "Topographical Surveying"..... 543
Walnutport Slate Shipments..... 80
Walsh Iron Mine, Minn..... 227
Walsh, Thomas..... 284
Walton Coal Co., Pa..... 560
Wanamaker's Pat. Brick Kiln.... 193
*Wantling & Johnson's Pat. Coal Mining Machine..... 222
Ward Chemical Co., N. Y..... 764
Ward Copper Mine, Minn..... 257
Ward Smelter, Colo..... 375
Ward's Pat. Conveyor..... 643
War Eagle Mine, Mont.....378, 797
War Eagle Mg. Co., B. C..49, 200, 290, 589, 620, 649, 710, 769
War Tax on Stock Transactions, 54, 55
Ware, Charles E..... 134
Waring, W. George, "Soil Treatment"..... 422
Warren Mica Mill, N. H..... 498
Warren Mine, Colo.....16, 76, 226, 315
Warren, W. J., "Gum-Bichromate Process'..... 2
Washburn & Moen Wire Co., Mass..... 801
Washington, Allen C..... 404
Washington Coal & Coke Co., Pa..... .....108, 304
Washington Coal Mines..... 799
Washington, Cyaniding Ores in... 739
Washington Extension Mine, Colo..... ....616, 796
Washington Mine, Cal.496, 615, 645, 795
Washington Mine, Utah.....18, 438
Washington Mining..... 739
*Washington, Republic Mine..... 545
Washington Slate Co., Pa..708, 711, 798
Washington, Sodium Sulphate, 619, 799
Washoe Mg. Co., Mont..108, 168, 527, 558, 587, 797
Wasp No. 2 Mine, S. Dak.....348, 408
Watch Night Sermon..... 782
*Water Elevator, Compressed Air, Mitchell's Pat..... 583
Water Elevator, Strickler's Pat.. 193
Water Power and Electric Transmission..... 602
Water Power in the Scotch Highlands..... 791
Water Power in Sweden..... 185
"Water Purification"..... 753
Water Rights and Mining Claims. 191
"Water Supplies of Ohio"..... 663
Water Wheel, De Remer's Pat.. 463
Water Wheel, Floating..... 192
*Water Wheel, Large Tangential. 461
Waterhouse, Columbus..... 674

*Waters' Pat. Concentrate Receiver..... 673
Watseka Mine, Mont..... 587
Watson, Alfred A..... 614
Watson, H., Assaying Cyanide Liquors for Gold..... 753
Watson, William H..... 464
Watteyne, Victor, "Accidents in Mines of Belgium"..... 693
Watteyne, Victor, "Explosives in Belgium Coal Mines"..... 693
Watt, J. A. "Bismuth Ores in New South Wales"..... 633
Watt, J. H..... 14
*Watt's Pat. Mine Car Wheel.... 553
Wautauga Mine, Colo..... 616
Wave Power, Armstrong's Pat.. 343
Waverley Mine, B. C..... 469
Wayne County Copper Prospects, Utah..... 109
Way's Pat. Stamp Mill Cam..... 253
Weare, G. C..... 554
Weatherwax's Pat. Gold Ore Treatment 193, 253, 613
*Weaver's Pat. Well Drill..... 253
Weber Gas & Gasoline Engine Co., Mo.....44, 104, 285, 314, 524
*Weber Gasoline Hoisting Engine 791
Weber Placer, S. Dak..... 289
Weber's Pat. Rolls..... 73
Webster, W. R., Chemical Constitution and Physical Character of Steel..... 485
Webster, William R., Structural Steel and Rail Specifications.... 640
Wedge Mine, Colo..... 436
Wedge Mine, Utah..... 109
Wedge Mg. Co., Cal..135, 165, 435, 466, 495
Weimer Machine Works Co., Pa.. 524
Weinhaus' Pat. Coke Oven Door.. 613
Wellborn Coal Field, Tex..... 145
Well Drilling Screw, Mack's Pat. 372
*Well Drill, Weaver's Pat..... 253
Well Rod Lifter, Allsup's Pat.... 312
Welles, E. H..... 224
Wellman-Seaver Engineering Co,. O..... 105
Wellman & Seaver's Pat. Conveyor..... 732
Wellman's Pat. Steel Casting..... 313
Wells, Charles E..... 494
Wells' Pat. Amalgamator..... 763
Wells' Pat. Roasting Furnace.... 763
Wells, R. V..... 584
Welsh Coal Miners' Strike.....271, 290
Welsh Coal Prices..... 760
Welsh Slate Prices.....471, 531
Welsh Slate Quarries.....261, 785
Welsh Slate Trade and American Slate..... 770
Welsh Tin Plate Trade, Wages.. 668
West Albion Slate Quarry, Pa., 438, 708
West Australian Joint Stock Trust..... 475
West Australian Loan & Finance Corporation..... 55
West Australian Market Trust... 55
West Bay City Coal Co., Mich.... 377
West Daisy Gold Mg. Co., Utah.. 558
West Kootenay Country, B. C..... 573
West Kootenay Power & Light Co., B. C.....559, 620
West Mountain Placer, Utah..408, 588
West Point Mine, Colo..... 196
West Point Mg. Co., Tenn..... 588
West Virginia Coal Trade and the Railroad 662
"West Virginia Department of Mines and Mining Report"..... 273
West Virginia Machine Coal Mining..... 394
West Virginia Miners' Association..... 139
West Virginia and Ohio Coal Competition 424
West Virginia Petroleum..... 109
West Virginia vs. Pittsburg Coal. 601
Western Australia Exposition.661, 668
Western Australia Gold Production.....109, 289, 349, 469, 649, 769
Western Australia Mining Laws, 349, 800
Western Australia Mining and Milling Ores..... 725
"Western Australia, Statistical Register for 1897"..... 723
Western Australia, Superficial Alteration of Ore Deposits..... 520
Western Coal Mg. Co., Ark..... 495
Western Mine, Mich..... 707
Western Pennsylvania Engineers' Society..... 494
Westinghouse Air Brake Co....44, 104
Westinghouse, Church & Kerr Co., N. Y..... 704
Westinghouse Electric & Mfg. Co., Pa..105, 164, 196, 285, 374, 465, 495, 615, 735, 764
*Westman's Pat. Pyritic Smelting 163
Weston Pass Section, Colo....145, 736, 796
Weston, William..... 164
Weston, W., Peers and the Press.. 303
Westwood's Pat. Blasting..... 523
Westwood's Pat. Plate Doubling Machine ..... —
Wetherill, Robert & Co., Pa..... 254
Wheeler, H. A., Clay Resources of Missouri..... 426
Wheeler, J. B..... 554
Whitaker, Edmund S..... 764
White Bear Mg. Co., B. C..19, 79, 109, 170, 200, 319, 350, 409, 500, 529, 559, 589, 710
White Breast Fuel Co., Ill..... 407
White Cap Mine, Colo..... 346
White Cloud Mine, Colo..... 616
White Cloud Mine, Mont..... 407
White Hills Mg. Co., Ariz.....315, 405
White Lead Chamber, Percival's Pat..... 433
White Lead Co., Ltd., London.. 595
White Lead Making, Garroway's Pat..... 553
White Lead Making, Sanderson's Pat..... 612
*White Mineral Press..... 431
White Oak Slate Quarry, Pa..... 318
White Pass & Yukon Railway Co. 205
White River Mg. Co., S. Dak..... 138
White River Oil Co., Ind..... 257
White Rock Mine, Utah..... 379
Whitewater Deep Mine, B. C..... 139
Whitney, A. R. & Co., N. Y..... 164
Whittle, C. L., Building and Road Stones of Massachusetts..... 336
Whittle, C. L., Clay Industry of Massachusetts 245
"Who's Who, 1898".....183, 543
Whycocomagh Mine, N. S..... 19
Wickes, R. D..... 464
Wicks Mine, N. M..... 798
Wide-Awake Mill, Colo..... 467
Wigg's Pat. Zinc Recovery..... 373
Wilcox-Miami Tunnel, Colo..... 315
Wilcox, R. M., "Theory and Calculation of Cantilever Bridges" 2
Wild Horse Mine, Colo..... 556
Wildman Mahony Mine, Cal..405, 165, 555
*Wild's Pat. Concentrator..... 133
*Wild's Pat. Hydrocarbon Burner 582
Wiley, W. H..... 464
Wilfley Concentrating Table, Utah..... 528
Wilkens, H. A. J., "Gold Mining in North Carolina.....62, 273
Wilkeson Coal Co., Wash.....78, 260
*Wilkinson, Paul, Treatment of Cement Plaster in Kansas..... 576
*Wilkinson's Pat. Electrode..... 223
*Willans' Central Valve Engine.. 395
William Penn Coal Co., Pa....18, 47
William Tell Mine, Cal..... 165
William Wallace Mine, Colo....145, 316
Williams, Arthur L..... 344
Williams Bros., N. Y..... 465
Williams' Crusher & Pulverizer Co..... 555
Williams, Gardner F..... 74
Williams, John..... 674
*Williams' Pat. Lixiviation Apparatus 253
Williamson Iron Co., Ala..... 81
Williston, A. L..... 644
Willow Creek Mg. Co., S. Dak.... 348
Willson, F. E.....134, 524
*Willson's Pat. Conveyor..... 583
Wilson, C. H..... 224
Wilson Creek Con. Mg. Co., Colo. 685
Wilson, James M..... 644
Wilson, W. B., Electric Mine Signals..... 693
Wilson, W. M..... 674
Wilson's Pat. Annealing Box..... 582
Wilson's Pat. Tube Machine..... 793
Winchell, Horace V.....344, 524
Wincross Mg. & Milling Co., Colo..... 796
Wind-Mills, Efficiency of.....132, 220
Windy Mine, Cal.....285, 765
Wine Harbor District, N. S..139, 350
*Wingard's Pat. Lime Kiln..... 463
Wing Tsue Syndicate, S. Dak..... 225
Winnemuck Mine, Utah..... 379
Winona Mg. Co., Mich..16, 137, 347, 586, 706
Winslow, I. P..... 614
Winthrop Iron Mine, Mich..... 16
Wire Drawing Mill, Nestmann's Pat..... 673
*Wire Glass Manufacture, Appert's Pat..... 193
Wire Screens, Sizes..... 12
Wire Trust Extension..... 781
Wisconsin-Illinois Mine, Cal..... 496
Wisconsin Mine, Colo..... 166
Wisconsin State Chemists' Association..... 584
Wishon, Walter W..... 224
Wissel, A. G..... 704
Witch Bay District, Ont..... 320
Witch Hazel Coal Co., Ohio..... 318
Withrow Mg. Co., N. S..... 649
*Witte Gasoline Hoisting Engine. 131
Witwatersrand Deep Level Dividends..... 775
Witwatersrand Gas Power..... 372
Witwatersrand Gold Production, Transvaal..139, 260, 379, 409, 499, 529, 649
*Witwatersrand, Treatment of Tailings in..... 5
Witz, Aime, "Gas and Petroleum Motors"..... 663
Woakes, Ernest R., Influence of Temperature in Amalgamation. 370
Wolfenite.....42, 312
Wolfram Deposit, Ariz..... 466
Wolfram Deposits, N. S..... 649
Wolfram Ore.....192, 222
Wolfram Ore, Demand for....391, 571
Wolfram, in S. Dak..... 798
Wolframite, in New Mexico..... 726
*Wolf's Pat. Miner's Lamp Igniter..... 523
Wolftone Mine, Colo.....226, 706, 796
*Woltz's Pat. Blowpipe..... 282
Wolverine Mg. Co., Mich..55, 76, 376, 647
Wolverine Mg. Co., Mich., Report..... 220
Wolverine Mining, Milling & Smelting Co., S. Dak..... 768
Wood Alcohol 132
*Wood Alcohol Making, Quinns' Pat..... 463
Wood, A. B.....374, 764
Wood, Henry C..... 314
Wood Mine, Colo.....736, 796
Wood Placer Mg. Co., Mont..... 17
Wood, Tingley S..... 314
Wood Preserving Composition, Blodgett's Pat..... 102
Wood River District, Wyo..... 19
*Wood Steam Stamp Mill..... 520
Wood, Strength of, Under Compression..... 63
Wood, Tests of..... 63
Woodbury Concentrator, Colo..... 436
Woodcock, D. C..... 704
Woodside Coal Co., Pa..... 198
Wood's Pat. Calcium Carbide Making 343
Wood's Pat. Miner's Lamp..... 43
*Wood's Pat. Stamp Mill..... 343
Woodstock Coal Co., Pa..... 18
Woodward, W. R..... 674
Wootten, John E..... 764
Wootton & Martin's Pat. Annealing Aluminum 553
Work Mg. Co., Colo.....15, 796
Worthington, Henry R., N. Y.. 405, 434, 764, 765
*Worthington's Pat. Pump Valve. 192
Wright-Davis Mg. Co., Minn..... 107
Wright, George..... 464
Wright, Whitaker 205, 475
Wright's Pat. Excavator..... 493
*Wright's Pat. Gas Compressor.. 402
Wright's Pat. Metal Tube Coating..... 793
*Wright's Pat. Oil Well Pump.... 703
Wright's Pat. Tube Machine..... 313
Wyandotte Mg. Co., Mich.....497, 617
Wyett, E. W..... 134
Wynne's Pat. Roller Mill..... 793
Wynona Copper Mg. Co., Mich.. 497
W. Y. O. D. Mg. Co., Cal..... 615
Wyoming Clays and Building Stones 546
*Wyoming Copper Region..... 640
Wyoming Graphite Mine..... 589
Wyoming Land, Iron & Coal Co., Wyo..... 769
Wyoming & Missouri Valley Coal Co., Wyo..... 260

X

Xichmook Ruins, Yucatan..... 696
X-Rays Used in Examining Mineral Fuel 11

Y

Yak Tunnel, Colo.....136, 225
Yale, Cooper & Co., Mo..... 678
Yale University..... 644
Yankee Boy Mine, S. Dak.....78, 289
Yankee Con. Mg. Co., Utah..199, 319, 438
Yankee Doodle Mine, Colo..... 586
Yankee Girl Mine, Colo..... 256
Yaqui District, Sonora, Mexico.... 410
Yates, John, "Metallurgical Engineering on the Rand"..... 333
Yavapai County Mines, Ariz..... 547
Yavapai Gold Mg. Co., Ariz..... 75
Yeates, W. S., "Preliminary Report on Georgia Gold Deposits" 753
Yellow Aster Mg. Co., Cal..75, 165, 225, 345, 435, 466, 615, 645, 765, 795
Yellow Creek District, S. Dak..78, 108
Yellow Jacket Gold and Silver Mg. Co., Nev.....295, 384
Yellow Metal Mine, Utah..... 739
Yellow Mountain Gold Mines Co., Colo..... 107
Yellow Pine Mine, Colo.....345, 766
Yellow Rose Mg. Co., Mo..... 347
Yellow Rose of Texas Mine, Cal. 796
Yellowstone Mine, Cal..... 225
Yellowstone Mine, Mont..... 228
Yellowstone Park Railway, Mont. 468
Yen, T. C..... 704
Yoch, Bernard..... 134
*Yoder's Pat. Salt Purifier..... 762
Yona Land & Mg. Co., Ga..... 16
Yorke, Charles..... 464
York Mine, Cal.....496, 765
York Mine, Utah..... 469
Young America-Cliff Con. Mg. Co., Wash..... 19
Young America Mg. Co., Nev..47, 115
Young, J. Dunraven..... 14
Young, J. W..... 224
Youngbluth, A. J., Iron Mines Accounts..... 334
Youngstown Steel Co., O..... 284
Yuba River Dredge, Cal..... 445
Yucatan, Ancient Ruins..... 696
Yucatan Mining Explorations, Mexico..... 140
Yukon Accounts..... 241
Yukon District, Alaska.....195, 500
Yukon District, Col. Bente on..... 260
Yukon District, Ont..... 320
Yukon Gold Arrivals..... 170
Yukon Gold Receipts..... 200
Yukon Gold Rumors..... 61
Yukon Gold Shipments..... 290
Yukon Hydraulic Mining Regulations..... 710
Yukon Navigation.....49, 380, 470, 650
Yukon, Overland Route to..... 49
Yukon Placers, Sale of..... 691
Yukon Police.....79, 170
Yukon River 170
*Yukon River Ice Breaking..... 245
Yukon River Navigation..... 559
Yukon Travel..... 109
*Yukon, Views on..... 247

Z

Zeile Mine, Cal..... 735
Zeile-Jackson Mine, Cal..... 645
Zelnora Mine, Utah..... 379
Zenith Gold Mg. Co., Mont....138, 527
Zenith Ore Co., Minn..... 107
Zener-Raymond Disinfectant Co., Mich..... 585
Zenobia Mine, Colo..... 346
Zika Mine, Ariz..... 165
Zinc (See Spelter).....Weekly
Zinc, Apparatus for Applying Grease to, Hegeler's Pat..... 252
Zinc Carbonate 372
Zinc, Electrolytic Determination of..... 424
Zinc Exports, U. S..54, 204, 354, 444, 474
Zinc, Greece..... 490
Zinc Imports, Great Britain..114, 264, 383, 534, 774
Zinc Imports, U. S..... 474
*Zinc-Lead Furnace, Schneider's Pat..... 13
Zinc-Lead Ore Treatment, Cowper-Coles..... 244
Zinc and Lead Sulphide Ores, Ashcroft Process 488
Zinc-Lead Sulphide, Ellershausen Process..... 364
Zinc Ore Market, Joplin.....Weekly
Zinc Ore Prices, Joplin..... 151
Zinc Pigments, Duty on..... 364
Zinc Process, Electrolytic, Jones' Pat..... 133
Zinc Recovery, Wigg's Pat..... 373
Zinc, Silesia 271
*Zinc Smelting Furnace, Hegeler's Pat..... 522
Zinc Smelting, Sevillot's Pat..... 553
Zumwalt Mine, Cal..... 375
Zuni Mine, Colo..... 76